'77 SUMMER SESSIONS

WORCESTER STATE COLLEGE

DIVISION OF GRADUATE EDUCATION AND SPECIAL PROGRAMS

A Multi-Purpose Institution

WORCESTER STATE COLLEGE

Division of Graduate Education and Special Programs

Summer Sessions 1977

Worcester State College is accredited at the graduate level by the New England Association of Schools and Colleges.

The Division of Graduate Education and Special Programs at Worcester State College is a member of: American Association of Adult Education, Association of Continuing Higher Education, National Council of Graduate Schools, National Summer School Association, National University Extension Service, North American Association of Summer Schools.

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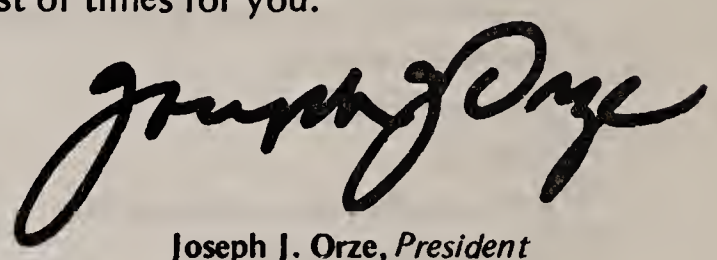
Summer Sessions at Worcester State College are times for intellectual, creative and professional activities removed from the hectic pace of the regular academic year. They are times when a student's academic pursuits can be easily intermeshed with the social and recreational opportunities of the college and the greater Worcester community. They are times to enjoy as well as times to study and grow intellectually and professionally.

Welcome to Worcester State College and its Summer Session. May they prove to be the best of times for you.



Joseph J. Orze, ***President***
Worcester State College

EQUAL OPPORTUNITY IN EDUCATION

Worcester State College is an academic community whose doors are open to all students without regard to race, religion, age, sex, or national origin. Opportunities and experiences are offered to all students on an equal basis and in such a way as to recognize and appreciate their individual and cultural differences. This policy of equal opportunity in education underlies all of the graduate and undergraduate programs and services of the College. In implementing this policy, Worcester State College adheres to the guidelines and requirements of Title VI of the Civil Rights Act and Title IX of the Higher Education Act of 1972.

ACCESS TO STUDENT RECORDS

Students have the right to view educational records pertaining to them which are kept in the Office of Graduate Education & Special Programs. Parents of students under 18 and/or parents of students who are dependent upon their parents (for Federal Income Tax purposes) have the right to view the records. Worcester State College faculty and staff members having legitimate educational interests may examine student files. Organizations conducting authorized studies may examine student records if the identity of the student will not be revealed in the study report(s) and/or publication(s). Persons processing a student's financial aid application may view student files. Recognized accrediting agencies and organizations may examine student file in pursuit of their accrediting functions. In an emergency, the Dean of Graduate Education and Special Programs (or his designee) may permit access to the records if this access is necessary to protect the health or safety of the student or other persons. The student may grant access to individuals or organizations not specified above. In this event there must be written permission given by the student. The organization or individual so designated must provide proof of identity in order to examine the student records.

Confidential evaluations and/or recommendations which are placed in the student's file prior to January 1, 1975 are not available for viewing by students or parents.

A student may voluntarily waive his/her right of access to his/her records. Any such waiver becomes part of the file.

In order to examine student files, students and eligible parents must complete the Request for Viewing Records Form. Individuals and/or organizations given permission by the student to examine records must present the completed Authorization for Release of Educational Information Form. Anyone who examines the student's record must sign a log which becomes part of the file. All requests to examine student files by students, parents, individuals, or organizations must be referred to the Dean (or his designee) for compliance.

NO PERSON OTHER THAN THE DEAN OF GRADUATE EDUCATION AND SPECIAL PROGRAMS (OR HIS DESIGNEE) MAY TAKE ANY ACTION ON REQUESTS TO EXAMINE STUDENT RECORDS.

BOARD OF TRUSTEES OF THE MASSACHUSETTS STATE COLLEGE SYSTEM

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ADMINISTRATIVE OFFICERS

Joseph J. Orze
President, 1975
B.F.A. Syracuse University
M.S. Syracuse University
Ed.D. George Peabody College

Noel J. Reyburn
Vice President and Academic Dean, 1970
B.S. University of Southern California
M.A. Stanford University
Ed.D. University of California at Berkeley

George P. Melican
Dean of Graduate Education and Special Programs, 1973
B.S. Worcester State College
M.Ed. Framingham State College
C.A.G.S. University of Connecticut
Ed.D. University of Massachusetts

Gertrude R. Leeds
Associate Director of Continuing Education, 1966
A.B. William Smith College
M.A. Niagara University

INTRODUCTION

INTRODUCTION

To fulfill the mission of a member institution of the Massachusetts State College System, Worcester State College's Division of Graduate Education and Special Programs is dedicated to the goals promulgated by the Board of Trustees of the State College System in the Agenda.

Mindful of its historic role as a public institution of higher learning and aware of the primary responsibility to serve the needs and reflect the wishes of the citizens of Massachusetts while simultaneously maintaining academic traditions and integrity, the Division aspires to promote the welfare of the present and future college community within a flexible framework.

The Division therefore strives toward the following objectives:

To extend the opportunities of higher education to the greatest number of students regardless of age, sex, race, color, creed or ethnic origin;

To encourage the individual student in his/her search for self-fulfillment personally and professionally throughout his/her life span;

To nurture the student's commitment to life-long learning by such means as the ability to analyze and synthesize information, to think independently and critically, and to respect the opinions and cultures of all peoples while seeking to improve the quality of human life (physically, politically, socially, economically, and psychologically);

To continue to strengthen the quality of academic offerings within the Division;

To maintain flexibility regarding the diversity of courses and programs while guarding against unnecessary proliferation and responding to emerging needs and interests of all citizens;

To expand the service to the public which has been a strong tradition in public higher education;

To cooperate with other public and private institutions of higher education in program development as well as in the use of faculty and facilities;

To improve articulation with two-year colleges in order to facilitate student mobility;

To prepare individual students to meet the present and future needs of society while maintaining concern for the student's career priorities;

To continuously provide options and opportunities which indicate awareness of individual learning styles;

To be aware of the necessity of new programs and to develop them expeditiously while preserving academic integrity;

To provide a variety of educational options for personal and professional renewal;

To cooperate with public and private institutions in planning to meet societal and institutional priorities;

To encourage individual awareness of and involvement with community, state, national, and world concerns and problems;

To make the most effective and efficient use of the human, natural, and material resources of the college and of the community.

THE SUMMER SESSIONS AT WORCESTER STATE COLLEGE

The Summer Sessions program, totally self-supporting, is designed to meet the needs of a wide variety of students who are interested in the enrichment of their educational background as well as those whose primary concern is completing requirements for a credential or degree. It includes a variety of classes, workshops, and institutes which will assist in the professional growth and certification needs of teachers, school administrators, and other educational personnel. In addition, many academic departments offer classes for men and women from a spectrum of lay and professional groups who are not working toward degrees, but who wish to acquire new knowledge and skills or to enhance those already acquired.

The Summer Sessions curriculum includes courses which range from lower division undergraduate to upper level graduate. Course offerings may be applied toward undergraduate and graduate requirements at Worcester State College as well as credential requirements.

Students are expected to have satisfied all prerequisites or have secured the instructor's waiver of prerequisites for any course in which they intend to enroll.

The Division of Graduate Education and Special Programs conducts two six-week summer sessions as well as several two and three-week intensive or workshop courses. In addition to the regular curriculum, summer offerings include many unique and innovative programs for teachers and other professional groups.

THE DIVISION OF GRADUATE EDUCATION AND SPECIAL PROGRAMS OF WORCESTER STATE COLLEGE

The Board of Trustees of the Massachusetts State College System has direct governing authority over Worcester State College. The Board of Education of the Commonwealth of Massachusetts acts as a coordinating board of all public higher education in the state. The President of Worcester State College serves at the discretion of the Board of Trustees in the capacity of the principal executive officer of the institution and reports directly to the Chancellor of the Massachusetts State College System. The Chancellor is appointed by the Board of Trustees and serves as the executive officer for the system.

The College governance system involves faculty, students, and administrators in representative bodies which deliberate issues affecting the College and recommend resolution of them to the President of the institution.

Worcester State College is an academic community open to all students without reference to race, religion, age, sex, or national origin. This policy of equal opportunity underlies all undergraduate programs and services of the institution. In implementing this policy, Worcester State College adheres to the guidelines and requirements of Title VI of the Civil Rights Act and Title IX of the Higher Education

Act of 1972.

The Division of Graduate Education and Special Programs is a self-sustaining and self-supporting segment of the Worcester State College community and is not supported by state funds.

The Division offers regularly established undergraduate and graduate courses as well as community-oriented courses, non-credit workshops and conferences, and travel/study programs. Workshops, courses and conferences to meet the needs of particular groups and communities may be initiated at various times during the year.

Any individual may enroll in a Divisional offering if he/she meets the prerequisite (if one exists). It is not necessary that he/she be admitted to matriculated status.

THE GRADUATE DIVISION

Master of Arts/Master of Science Degrees in Biology

Master of Education Degrees with Concentrations in:

Adult Education
Audiovisual Media
Biology
Chemistry
Community Education
Computer Science
Counselor Education
Early Childhood Education
Elementary Education
English
Health Education
History
Language Arts
Leadership and Educational Administration
Library Science/Media
Mathematics
Natural Science
Reading
Secondary Education
Spanish
Special Needs
Urban Education

Certificate of Advanced Graduate Study In:

Counselor Education
Leadership and Educational Administration
Professional Administration with a Concentration in Language Arts and Reading

A graduate degree is evidence of scholarly accomplishment, academic achievement, creative and critical ability, and the capacity to apply and interpret what has been absorbed by the individual student in an ethical manner.

The primary objective of graduate education at Worcester State College is the individual student's professional and personal growth and development. To attain this goal, the Division of Graduate Education and Special Programs continually strives to provide opportunities, through its varied programs of study, for the improvement of professional competencies in a number of disciplines. This endeavor is pursued in an atmosphere which is both challenging and rewarding since faculty and staff are aware of their responsibility to provide innovative leadership to the citizens and Commonwealth of Massachusetts.

DIVISION OF SPECIAL PROGRAMS

Are You . . . A high school student who wants to find out what college is all about? . . . A high school graduate wondering if college is for you? . . . A college student who "dropped out" and wants to find out if he/she should "drop in"?. . . A person holding a full or part-time job who would like to get some college credit for job advancement or to meet new people or just because . . .? . . . A homemaker who wants to use his/her free time to explore the "new" college? . . . An elder citizen who finds the idea of attending college exciting at this stage of life? . . . Dissatisfied and wanting to put your life and future in focus?

Worcester State College has the answer for you — in its Division of Special Programs.

You don't have to apply for a degree program . . . if you don't want to . . or you don't want to . . . yet. Come and try one of our courses or workshops . . . in the morning, or the afternoon, or the evening . . . for 2 weeks, or 3 weeks, or 6. Try a new way of thinking . . . about a new subject ... or an old one. Try a new way of doing . . . something you've done before or an old way of doing something new. Meet people from 17 to 60 . . . and some older . . . and younger. Learn with your neighbor . . . or someone who lives 100 miles away . .. or 1,000. Of course, if you know that you want a degree, consider our academic "menu" leading to . . .

Bachelor of Arts or Bachelor of Science with majors in English, History, Management, Mathematics, Natural Science, Psychology, Sociology. **And minors in** English, History, Mathematics, Natural Science.

THE OFFICE OF GRADUATE EDUCATION AND SPECIAL PROGRAMS

Inquiries regarding graduate and continuing study should be directed to this office.

During in-person registration, late registration, and when division classes are in session, the office will be open according to the following schedule: Monday - Thursday 10 a.m. to 9 p.m. , Friday 10 a.m. to 4 p.m.

During other periods; the office will be open according to the following schedule: Monday — Thursday 9 a.m. to 9:30 p.m. , Friday 9 a.m. to 4:30 p.m.

The Office of Graduate Education and Special Programs is located in: Room S112 — Science Building, Worcester State College. Telephone Number: 752-7700 (ext. 253, 273, 388) or 799-2405.

FACULTY

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B.A., 1958, University of Phillipines
Ed.M., 1965, Boston College
Ed.D., 1969, Boston University

CHAPMAN, HAROLD
B.S., 1950, University of Maine
Ed.M., 1954, University of Maine
M.S., 1957, Syracuse
Ph.D., 1971, University of Connecticut

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M.S., 1957, SUNY-Albany
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Ph.D., 1958, Harvard

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M.A., 1952, Harvard
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LL.M, 1960, Harvard University
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Diploma, 1932, Bridgewater State College
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M.S., 1951, Simmons College

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B. in Mechanical Engineering, 1958, General Motors Institute of Technology
M.S., 1962, Rensselaier Polytechnical Institute
Ph.D., 1966, Rensselaier Polytechnical Institute

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Diploma in Social Welfare, 1968, Institute of Social Studies - the Hague
M. Social Science, 1960, Institute of Social Studies - the Hague
Ph.D., 1971, University of Colorado

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A.B., 1947, Houghton College
M.S., 1950, University of Maryland
Ph.D., 1953, University of Maryland

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C.A.G.S., 1951, Boston University

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Ed.M., 1943, Boston City College
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Diploma in Professional Education, 1956, University of Connecticut
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A.M., 1950, Syracuse University
Ph.D., 1957, Clark University

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Ph.D., 1969, Indiana University

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M.S., 1961, Trinity College
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M.A., 1955, Yale University
M.S., 1961, Rensselaier Polytechnical Institute
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B.S., 1942, Boston College
M.A., 1945, Harvard University
Ph.D., 1955, Catholic University

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M.Ed., 1950, Boston University
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B.S., 1956, Massachusetts College of Art
M.A., 1965, San Jose State College
Ed.D., 1972, University of Massachusetts

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M.A., 1949, Boston University

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B.S., 1963, Worcester State College
M.A., 1965, Clark University
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B.S., 1953, Holy Cross College
M.A., 1956, Boston University

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B.S. & R.N., 1961, University of Bridgeport
M.S., 1964, University of Connecticut
M.S., 1967, Boston College
Ed.D., 1974, Boston University

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B.S., 1954, Worcester State College
Ed.M., 1958, Worcester State College

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B.S., 1951, Worcester State College
Ed.M., 1952, Worcester State College

KAMINSKY, ABRAM
B.M.E., 1960, Indiana State University
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B.S., 1952, Long Island University
M.A., 1959, Columbia University

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A.B., 1960, Assumption College
M.A., 1964, Clark University
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M.A., 1948, Boston College
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A.B., 1959, American International College
Ed.M., 1962, Westfield State College
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B.S., 1963, Worcester State College
M.A.T., 1964, Harvard University

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B.S., 1952, Holy Cross College
B.S., 1953, Worcester State College
Ed.M., 1955, Worcester State College

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M.S., 1961, South Dakota State University
Ph.D., 1966, University of California at Davis

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A.B., 1962, Clark University
M.A., 1964, Clark University
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B.S., 1965, University of Massachusetts
M.S., 1967, University of Rhode Island
Ph.D., 1972, Clark University

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B.A., 1959, Rutgers University
M.A., 1961, New School for Social Research

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A.B., 1962, Southwest Missouri State University
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Ed.D., 1973, Boston University

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ASSISTANT PROFESSORS

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M.A., 1965, Boston University
M.F.A., 1968, University of Massachusetts
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Ed.M., 1961, Worcester State College
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M.A., 1970, Northeastern University

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A.M., 1964, Laval University

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Ed.M., 1960, Worcester State College
M.A.T., 1966, Michigan State University

BURNS, M. KATHLEEN
B.A., 1934, Radcliffe College
M.A., 1935, Clark University

BYERS, WILLIAM
B.D., 1966, Kenyon
M. of Divinity, 1973
A.B., 1961, Colby College

CASALE, JACQUELINE
B.A., 1950, New York University
M.A., 1952, Tufts University

CELONA, JENNIE
A.B., 1960, Emmanuel College
M.A., 1964, Middlebury College

CELONA, LOUIS
B.M., 1954, New England Conservatory
M.M., 1956, New England Conservatory
M.A., 1963, Middlebury College

COHEN, ANNA
B.A., 1964, Neward State College
M.A., 1965, University of Wisconsin
Ed.D., 1974, Columbia University

COOPER, ALAN
B.S., 1964, Tufts University
A.M., 1966, Ph.D., 1968, Boston University

CROWLEY, PHYLLIS
B.S., 1949, Worcester State College
M.A., 1953, Catholic University

DALY, ALDONA
R.N., 1950, Worcester Hahnemann Hospital
B.S., 1959, Clark University
M.A., 1967, Assumption College
C.A.G.S., 1972, Assumption College

DELANEY, CLEMENT
A.B., 1956, St. Michael's College
M.A., 1959, St. Michael's College

DEMARS, JANET
B.S., 1953, Sargent College
Ed.M., 1962, Springfield College

DESROSIERS, BARBARA
B.A., 1957, University of Massachusetts
Ed.M., 1958, Harvard University

DEVLIN, DONNA
B.S., 1968, Southern Connecticut State College
M.A., 1969, Southern Connecticut State College

DOLPHIN, MARY
A.B., 1955, Marygrove College
Ed.M., 1956, Worcester State College

DUQUETTE, HELEN
B.S., 1952, Bridgewater State College
Ed.M., 1957, Springfield College

EDDY, ALFRED
A.B., 1949, Harvard University
M.A., 1963, Trinity College

ELLIS, ROBERT
A.B., 1957, Harpur College
M.A., 1962, Boston College

ENDRIGA, GIL
B.S., 1962, University of California at Berkeley
M.B.A., 1964, Harvard University

FERGUSON, ARTHUR
A.B., 1962, Oberlin College
Ph.D., 1969, University of Wisconsin

FRAUMENI, FLORENCE
B.S., 1944, Rhode Island College of Education
Ed.M., 1952, Boston University
Ed.D., 1954, Boston University

GEER, CHARLES
B.S., 1955, SUNY-Brockport College
M.S., 1963, SUNY-Brockport College
Ph.D., 1970, University of Texas

GIBBS, C. KENNETH
A.B., 1964, Amherst College
M.A., 1966, Rutgers College
M.F.A., 1970, University of Massachusetts

GIROUARD, JAMES
B.S., 1959, Boston University
M.S., 1958, Springfield College

GOLDSMITH, BERNARD
A.B., 1950, University of Michigan
M.A., 1963, Clark University

GRAHAM, TERRY
A.B., 1965, Suffolk University
M.S., 1967, University of New Hampshire
Ph.D., 1972, University of Rhode Island

GRIMES, PHILIP
A.B., 1965, University of New Hampshire
M.A., 1967, University of New Hampshire

GUARINI, BERNARD
A.B., 1960, Holy Cross College
M.A., 1962, Clark University
M.A., 1965, Assumption College
C.A.G.S., 1974, Assumption College

GUERIN, ROSE
A.B., 1949, Marietta College
M.A., 1951, Boston University

HALEY, MARY
B.S., 1952, Boston College
M.S., 1967, Boston College

HARRIS, NANCY
B.A., 1959, Clark University
M.A., 1963, University of Massachusetts
Ed.D., 1975, Boston University

HARRIS, RONALD
A.B., 1965, University of Pennsylvania
M.A., 1970, Harvard University
Ph.D., 1971, Harvard University

HAYES, JOHN
A.B., 1951, Holy Cross College
Ed.M., 1956, Harvard University
M.A., 1969, Wesleyan College

HENGEN, C. GARTH
B.S., 1961, University of Nebraska
M.A., 1964, Syracuse University
Ph.D., 1973, New York University

HILL, W. MACK
B.S., 1964, Wheeling College
M.S., 1966, Ohio State College
Ph.D., 1971, University of Cincinnati

HUNT, RICHARD
B.S., 1961, Indiana University
M.S., 1968, Southern Connecticut State College

HURD, RONALD
B.S., 1959, Worcester State College
Ed.M., 1963, Worcester State College

JOHNSON, NANCY
A.B., 1955, Clark University
A.M., 1957, Clark University

JONES, JOLINE
A.B., 1964, Syracuse University
Ph.D., 1968, Syracuse University

KANE, ROBERT
A.B., 1955, Holy Cross College
Ed.M., 1963, Worcester State College
M.A., 1968, Assumption College

KITTREDGE, MARGARET
A.B., 1954, Clark University
M.A., 1955, Harvard University

KOCHER, SANDRA
B.A., 1956, Oberlin College
M.A., 1959, Stanford University

KOTZEN, MARSHALL
B.S., 1964, Tufts University
M.S., 1967, University of New Hampshire

LINGER, ROBERT
A.B., 1954, Clark University
M.A., 1956, University of Maine

LOVERING, MARY
Diploma, 1953, Mary Fletcher Hospital
Certificate, Montreal Neurological Institute
B.S., 1962, Syracuse University
M.S., 1968, Boston College

MARTEL, YVONNE
A.B., 1964, Assumption College
M.A., 1967, Assumption College

MATHESON, GORDON
A.B., 1964, Olivet College
M.A., 1968, Assumption College

McLAUGHLIN, JOHN
B.S., 1956, Holy Cross College
M.Ed., 1962, Worcester State College

MEEGAN, MARY
B.S., 1966, Framingham State College
M.A., 1968, Boston College
Ph.D., 1976, Boston College

MERLE, MICHEL
B.S., 1961, Columbia University
M.A., 1962, Columbia University
M.F.A., 1967, Instituto Allende, Mexico

MINASIAN, FRANK
A.B., 1961, Clark University
M.A.T., 1965, Assumption College

MITCHELL, A. GIBBS
B.S., 1959, Central Connecticut State College
M.A., 1966, Boston University
Ph.D., 1976, Boston University

MITCHELL, GARRETT
B.S., 1951, SUNY-Fredonia College
M.S., 1959, Indiana University
E.D.S., 1960, Indiana University

MULCAHY, MICHAEL
B.S., 1963, Worcester State College
Ed.M., 1966, Worcester State College

NASH, JOHN
B.A., 1950, American International College
M.A., 1951, American International College
Ed.D., 1970, Boston University

NORMANDIN, ANNE
B.A., 1963, University of Connecticut
M.A., 1967, Assumption College

O'CONNOR, FRANCIS
A.B., 1943, Harvard University
M.A., 1947, Harvard University

O'CONNOR, RICHARD
B.S., 1962, Clark University
M.A., 1966, Assumption College

OSBORNE, CHAD
B.A., 1965, Yale University
M.A., 1966, Stanford University

PETERSON, CARL
B.S., 1948, Fitchburg State College
Ed.M., 1951, Fitchburg State College

PICCOLO, VINCENT
A.B., 1950, Tufts University
M.S., 1951, Simmons College
Ed.M., 1974, Boston University

PIZZIFERRI, FRANK
B.S., 1960, Boston University
M.S., 1966, Illinois Institute of Technology

POLITO, JOSEPHINE
B.S., 1952, Nazareth College
M.S., 1967, Syracuse University
Ph.D., 1974, Syracuse University

POWER, MAUREEN
A.A., 1965, Mary Rogers College
B.A., 1969, Emmanuel College
M.S.W., 1971, Brandeis University

POWERS, VINCENT
A.A., 1955, Worcester Junior College
B.A., 1957, University of Massachusetts
M.A., 1964, University of Massachusetts

RAPUANO, FRANK
B.S., 1959, Northeastern
B.A., Liceo, Italy
M.A., 1963, Boston University
Ph.D., 1970, Clark University

READ, M. MARGARET
B.S., 1958, Western Michigan University
M.S., 1961, University of Wisconsin

SAHAGIAN, ROBERT
B.M., 1957, New England Conservatory
M.M., 1967, Michigan State University

SALIBA, NAJIB
B.A., 1965, Miami University (Ohio)
M.A., 1966, University of Michigan
Ph.D., 1971, University of Michigan

SCHAFF, DION
A.B., 1968, New College (Sarasota)
A.M., 1970, Brown University
Ph.D., 1971, Brown University

SCHLOSSER, COURTNEY
A.B., 1962, George Washington University
Ed.M., Boston University
Ed.D., 1969, Boston University

SEIFFER, DAVID
A.B., 1965, Hunter College
M.A., 1970, New York University

SEMERJIAN, HELENA
B.S., 1961, Fitchburg State College
Ed.M., 1966, Boston University

SHEA, ANN MARIE
A.B., 1961, Anna Maria College
M.A., 1964, Catholic University

SULLIVAN, RICHARD
A.B., 1959, Providence University
M.A., 1966, Boston College

THOMPSON, ROBERT
B.S., 1965, Worcester State College
M.A., 1967, Clark University

TRIMBY, F. STEPHEN
A.B., 1966, Assumption College
M.A., 1969, Clark University

TWISS, DAVID
B.S., 1955, Worcester State College
Ed.M., 1958, Worcester State College
M.A., 1967, Assumption College

WALKER, ROBERT
A.B., 1965, Bard College
M.A., 1966, City College of New York
Ph.D., 1975, University of Connecticut

WASILKO, CHARLES
A.B., 1963, Dickinson College
M.A., 1964, Harvard University

WIDMAYER, JAMES
B.A., 1947, St. John's College
M.A., 1955, Catholic University
M.A., 1963, St. John's College
Ph.D., 1972, Fordham College

WURSTER, RICHARD
B.A., 1967, Clark University
M.B.A., 1969, Cornell University
M.A., 1975, Clark University

ZEGARRA, JOSEPH
A.B., 1960, Earlham College
M.A., 1966, Ball State
Ed.D., 1971, Ball State College

INSTRUCTORS

CLOUGH, LOUISE
B.S., 1970, Boston College
M.A., 1975, Boston University

DOWNEY, KATHLEEN
B.S., 1955, Simmons College
M.A., 1962, Middlebury College

GRANDONE, EMMET
A.B., 1962, Clark University
M.A., 1963, University of Connecticut

HARRIS, JUDITH
B.B.A., 1964, University of Wisconsin
M.B.A., 1967, Boston University

MARTELL, HARRY
B.S., 1965, Northeastern University
Ed.M., 1972, St. Michael College

McEACHERN, GARY
B.S., 1966, Norwich College
M.B.A., 1972, Western New England College

ZEADEY, FAITH
B.S., 1960, Boston College
M.A., 1963, Boston College

ZELMAN, MATTHEW
B.A., 1966, Northeastern University
M.A., 1970, Boston University

LIBRARIANS

BRENNEMAN, BETSEY
B.S., 1968, Kent State University
M.L.S., 1971, Syracuse University
M.A.T., 1977, Fitchburg State College

COTE, E. EVELYN

DAS GUPTA, KRISHNA
A.B., 1956, University of Calcutta
M.A., 1958, University of Calcutta
M.L.S., 1969, Simmons College

DE BUSE, JUDITH
B.A., 1960, University of Oregon
M.L.S., 1971, Columbia University

DICK, DANIEL
B.A., 1947, Amherst
M. of Forestry, 1949, Yale University
M.L.S., 1970, University of Rhode Island

GREENSLIT, RUTH

SMITH, HELEN
A.B., 1941, University of Massachusetts
B.S., 1942, Simmons College

WEBBER, RUTH
A.A., 1968, Mount Wachusett Community College
B.A., 1970, University of Massachusetts
M.L.S., 1971, SUNY-Albany College

VISITING FACULTY

BROOKS, LESLIE
B.S., 1961, Worcester State College
M.Ed., 1963, Worcester State College
M.A., 1967, Assumption College
J.D., 1974, Western New England School of Law

BROWN, BEVERLY
B.S., 1970, Fitchburg State College
M.A., 1972, Fitchburg State College

BUCKLEY, JAMES J.
A.B., 1954, Boston College
M.Ed., 1955, Boston State College
M.A., 1963, Tufts University
C.A.G.S., 1968, Harvard University
Ed.D., 1969, Harvard University

BULLENS, DONALD
B.S., 1969, Worcester State College
M.S., 1974, Worcester State College

CASAVANT, ROBERT
B.S.B.A., 1969, Clark University
M.Ed., 1976, Worcester State College

CASHMAN, ROBERT
A.A., 1968, Worcester Junior College
B.A., 1970, Worcester State College
M.A., 1971, Assumption College
M.Ed., 1974, Worcester State College

DAILEY, ANN
B.A., 1945, Baylor University
M.A., 1947, University of Michigan

FISCHER, JOAN
A.B., 1966, Montclair State College
M.A., 1970, Seton Hall University

FLAHERTY, JOAN
B.A., 1949, Clark University
M.Ed., 1955, Worcester State College

FOX, RICHARD
B.S., 1963, Worcester State College
M.Ed., 1970, Worcester State College
Ed.D., 1973, University of Massachusetts

GANNON, JEAN
B.A., 1964, Anna Maria College
M.A., 1966, Boston College

GILMARTIN, RICHARD
B.A., 1955, St. Francis College
M.A., 1960, Fordham University

GORMAN, JOHN
B.A., 1951, Providence College
M.A., 1966, Northeastern University
C.A.G.S., 1968, University of Connecticut

IVASCYN, DANIEL
B.B.A., 1969, Nichols College
M.B.A., 1974, Clark University

KAPLAN, RICHARD
A.B., 1968, Boston University
M.A., 1969, University of North Carolina

LIMOGES, NORMAN
B.Ph., 1956, University of Ottawa
L.TH., 1960, University of Ottawa
M.Ed., 1968, Boston College

LEASCA, PETER
B.S., 1949, Bryant College
A.S. Industrial Engineering, 1957, Worcester Junior College

LOSO, HARRY
B.S., 1968, Castleton State Teachers College
M.Ed., 1970, University of Vermont

LOUGHLIN, RAYMOND
B.S., 1959, Fitchburg State College
Ed.M., 1966, Worcester State College
C.A.G.S., 1966, Boston University
Ed.D., 1972, University of Sarasota

MOOSEY, DORYCE
A.B., 1951, Boston University
M.Ed., 1954, Boston University
Ed.D., 1975, Nova University

MUNSON, HOWARD
B.S., 1943, Central Connecticut College
M.S.T., 1945, Hartford Seminary Foundation
M.Ed., 1969, Salem State College
Ed.D., 1975, University of Massachusetts

O'CONNOR, RICHARD
B.S., 1962, Clark University
M.A., 1966, Assumption College

SCHACHTER, SUSAN
A.A., 1968, Cazenovia College
B.S., 1970, Boston University
M.Ed., 1975, Boston State College

SHUMWAY, ROBERT
B.A., 1958, Northeastern University
L.I.B., 1962, Suffolk University

SIMONCINI, JOHN
B.A., 1960, North Adams State College
M.A., 1965, Worcester State College

SNELGROVE, JOHN
B.S., 1963, Southern Connecticut State College
M.Ed., 1968, Framingham State College

TATTAN, WILLIAM
A.B., University of Notre Dame
Jur.D., 1964, New England School of Law

TOWERS, RICHARD
B.A., 1963, University of Massachusetts
M.Ed., 1966, Northeastern University
Ph.D., 1969, University of South Carolina

VALENTE, MICHAEL
A.A., 1969, Northern Essex Community College
B.A., 1971, University of Massachusetts
M.A.T., 1973, University of Massachusetts

WEINER, PAUL
M.S., 1965, Syracuse University
A.B., 1962, Syracuse University

GENERAL INFORMATION

ALL STUDENTS ARE STRONGLY URGED TO MAKE THEMSELVES THOROUGHLY FAMILIAR WITH THE REGULATIONS AND PROCEDURES OUTLINED IN THIS PUBLICATION.

IT IS THE RESPONSIBILITY OF THE STUDENT TO BE AWARE OF AND COMPLY WITH ALL REGULATIONS AND PROCEDURES.

Failure to read this publication does not excuse students from the requirements and regulations which are specified.

MATRICULATION IN A GRADUATE DEGREE PROGRAM

In order to become a candidate for a degree, formal application for matriculation must be made and the applicant must be officially accepted into a specific degree program. Students enrolled in courses (which carry academic credit) but not formally matriculated, are considered non-matriculated students and are not, therefore, in a degree-granting program. Students are strongly urged to apply for matriculation as soon as they decide to pursue a degree.

A student who matriculates in his/her program is immediately assigned an academic advisor in the specific area of study, has the opportunity to plan an approved program to meet his/her needs, and is not adversely affected by any subsequent changes in requirements for the program and/or degree.

For additional information regarding the programs of study, procedures for admission to matriculated status, degree requirements, etc., interested individuals should contact: The Division of Graduate Education, Science Building, Rm. S112, Worcester State College, 486 Chandler Street, Worcester, MA 01602. Phone Number: 752-7700 (ext. 253, 273, 388) or 799-2405.

ADMISSION TO POST-BACCALAUREATE STUDY

General Requirements:

The general requirements for admission to post-baccalaureate study at Worcester State College are in accordance with the campus regulations. Specifically, a student shall:

1. have completed a four-year college course of study and hold an accepted baccalaureate degree from an institution of higher education which has been accredited by the appropriate regional accrediting association;

2. have attained a cumulative grade point average of 2.75 or above;

3. satisfactorily meet the professional, personal, scholastic, and other standards for graduate study, including qualifying examinations.

Applicants should consult the Admission Form for all details regarding general requirements for admission to graduate study.

Concentration Area Requirements:

Applicants should consult the information contained under the concentration area in which they are interested for specific admission requirement.

Notification of Admission to Post-Baccalaureate Study

Following the submission of all required data and information for admission, a review of the applicant's eligibility by the appropriate faculty and the Dean of Graduate Education occurs. The applicant is officially notified by the dean of the decision which has been reached on his/her application. Only the Dean of Graduate Education can issue an official acceptance for admission to the Graduate Division.

GRADUATE RECORD EXAMINATION AND/OR MILLER ANALOGY TEST

The Graduate Record Examination or The Miller Analogy Test is required of students applying for admission to the Graduate Division. This requirement is waived if the applicant holds a Master's degree awarded by an accredited institution of higher education.

The Graduate Record Examination is administered at Worcester State College. During the 1977-1978 academic year, it will be held on the following dates: October 15, 1977, December 10, 1977, January 14, 1978, February 25, 1978 (General Aptitude Test only), April 22, 1978, June 10, 1978.

Information regarding the Miller Analogy Test may be obtained by contacting the Counseling Center at either Clark University or Holy Cross College, both of which administer this examination.

Foreign students who lack a ready facility with the English Language may elect to fulfill this requirement by taking the TOEFL Test (Test of English as a Foreign Language). Information regarding this test can be obtained by contacting: TOEFL, Box 899, Princeton, N.J. 08540.

CANDIDACY FOR GRADUATE DEGREES AND GRADUATE CERTIFICATES

Matriculated graduate students should complete an INTENT TO GRADUATE FORM at the time they enroll in their final semester of graduate study. The form is available at the Office of Graduate Education and Special Programs.

Commencement exercises are held in the spring of the academic year. Students who complete all requirements for their program of graduate study during the fall semester or during the summer sessions should contact the Office of Graduate Education by MARCH 15th if they intend to participate in the spring commencement ceremonies.

COMPREHENSIVE EXAMINATION

Effective July 1, 1975 Comprehensive Examinations will be given in the area of concentration or program of study.

Matriculated students should consult their program advisor regarding specific requirements for the comprehensive examination in their area or program.

SPECIAL NOTICE – STATE CERTIFICATION

Courses leading to Massachusetts certification as secondary school and special subject teachers are available through the Division of Graduate Education and Special Programs for both undergraduate and post-baccalaureate students. For further information please contact: Mr. Richard Sine, Director of Professional Experiences or Dr. David Quist, Chairperson of the Secondary Education Department.

Teacher certification is the responsibility of the State Department of Education. Inquiries relating to certification should be addressed to: The Bureau of Teacher Certification and Placement, Massachusetts State Department of Education, 182 Tremont Street, Boston, Mass. 02111.

REGISTRATION

A student is considered to be officially registered in a course if he/she:

1. accurately completes an official registration form for the course;
2. submits full payment for tuition and all fees which are due;
3. receives an official class admission slip (student copy of the registration form).

FIRST SUMMER SESSION (May 23 - June 30)

Mail Registration	April 25 - May 20
In-Person Registration	May 16 - May 21
Monday - Thursday	10:00 a.m. - 9:00 p.m.
Friday	10:00 a.m. - 4:00 p.m.
Saturday (May 21st only)	9:00 a.m. - Noon
Late Registration	May 23 - May 27
Monday - Thursday	10:00 a.m. - 9:00 p.m.
Friday	10:00 a.m. - 4:00 p.m.

SECOND SUMMER SESSION (July 11 - August 19)

NOTE: THIS REGISTRATION IS FOR ALL COURSES AND WORKSHOPS WHICH WILL BE HELD DURING THIS PERIOD REGARDLESS OF THE DATES ON WHICH THEY BEGIN AND END. Enrollees should enroll for all courses which they plan to take during this session according to the following schedule in order to ensure that they secure the course they desire.

Mail Registration	June 13 - June 24
In-Person Registration	June 25 - July 8 (excepting July 4)
Saturday (June 25th only)	9:00 a.m. - noon
Monday - Thursday	10:00 a.m. - 9:00 p.m.
Friday	10:00 a.m. - 4:00 p.m.
Late Registration	July 11 - July 15
Monday - Thursday	10:00 a.m. - 9:00 p.m.
Friday	10:00 a.m. - 4:00 p.m.

CLASS ADMISSION SLIPS

Students will not be permitted entry to a class without presenting the Student Copy of the Registration Form to the instructor.

TUITION AND FEES

TUITION

Massachusetts Resident	$25 per credit
Non-Resident of Massachusetts	$32 per credit
Audit (Resident and Non-Resident)	$18 per credit

FEES

* Registration Fee (per summer session)	$10.00
* Library Fee (per summer session)	$10.00
* Late Registration Fee (per course)	$ 2.00
* Course Change Fee (per course)	$ 2.00
* Placement Fee (for those receiving degrees)	$ 5.00
* Parking Fee (payable separately)	$ .50
* Transcript Fee (payable separately)	$ 1.00

*THESE FEES ARE NOT REFUNDABLE UNDER ANY CIRCUMSTANCES

All tuition and fees are payable on the date of registration and must be paid by bank check, money order or personal check.

CASH WILL NOT BE ACCEPTED.

FEE COMPUTATION

For your assistance, the following computation should be used for Massachusetts residents:

One 1-credit course (includes tuition, registration fee and library fee)	$ 35.00
One 3-credit course (includes tuition, registration fee and library fee)	$ 95.00
One 4-credit course (includes tuition, registration fee and library fee)	$120.00
Two 3-credit courses (includes tuition, registration fee and library fee)	$170.00
Three 3-credit courses (includes tuition, registration fee and library fee)	$245.00
Four 3-credit courses (includes tuition, registration fee and library fee)	$320.00
One 3-credit and one 4-credit course (includes tuition, registration fee and library fee)	$195.00

CHANGE OF COURSE

A fee of $2.00 is required of all students for each course change with the exception of a course change which is necessitated by the cancellation of a scheduled course by the Dean. NO CHANGE OF COURSE WILL BE PERMITTED AFTER THE 2ND REGULARLY SCHEDULED MEETING OF THE CLASS.

CANCELLATION OF COURSES

The Dean of the Division of Graduate Education and Special Programs reserves the right to cancel any course which does not secure sufficient enrollment or for any other reason deemed to be in the best interest of the Division and/or Worcester State College. Students who have enrolled in a course which is cancelled by the Dean may transfer into another course (on a space-available basis) without the imposition of a course change fee or may receive a full refund of tuition and fees.

CHANGE OF REGISTRATION STATUS

A student may change from credit to audit status up to the last scheduled class meeting. No refund will be made in such cases.

A student may change from audit to credit status up to the beginning of the 4th regularly scheduled class meeting. In such cases, the student must pay the full tuition at the time of the change. After the beginning of the 4th regularly scheduled class meeting, no such changes will be made.

WITHDRAWAL AND REFUNDS

FAILURE TO ATTEND CLASS MEETING DOES NOT AUTOMATICALLY CONSTITUTE OFFICIAL WITHDRAWAL FROM A COURSE. Official notice of withdrawal must be made on the form which is available at the Office of Graduate Education and Special Programs. The official date of withdrawal is determined by the date on which the completed form is receive by the Office. If the proper procedure for withdrawal is not followed, students will receive an official grade of "E" for the course.

Eligibility for tuition refund is based on the academic calendar and is prorated as follows:

FOR 6-WEEK COURSES:

Withdrawal prior to the second class meeting	100%
Withdrawal prior to the third class meeting	80%
Withdrawal prior to the fourth class meeting	60%
Withdrawal after the fourth class meeting	none

FOR 3-WEEK COURSES AND 2-WEEK WORKSHOPS:

Withdrawal prior to first class meeting	100%
Withdrawal prior to second class meeting	80%
Withdrawal after the second class meeting	none

FEES ARE NOT REFUNDABLE UNDER ANY CIRCUMSTANCES OTHER THAN THE DECISION BY THE DEAN TO CANCEL A COURSE.

The State refunding process normally requires a minimum period of 45 days from the date on which the refund request is submitted by the Division of Graduate Education and Special Problems.

The deadline for withdrawal from a course is the 4th regular class meeting (for a 6-week course) and the 2nd regular class meeting for a 3-week or 2-week course. Students with extenuating circumstances must secure the approval of the Dean in order to withdraw from a course after the deadline. A grade of "W" will be officially recorded if a student withdraws from a course.

GRADING POLICIES AND ACADEMIC STANDARDS

Undergraduate Students

The grading system for undergraduate students is as follows: Letter Grades — A, A-, B+, B, B-, C+, C, C-, D+, D, E(Failure), W (Withdraw) WP (Withdraw Pass), WF (Withdraw Fail), I (Incomplete).

The following numerical equivalencies apply in computation of a student's QPA (Quality Point Average): A is equivalent to 4.0; A- is equivalent to 3.7; B+ is equivalent to 3.3; B is equivalent to 3.0; B- is equivalent to 2.7; C+ is equivalent to 2.3; C is equivalent to 2.0; C- is equivalent to 1.7; D+ is equivalent to 1.3; D is equivalent to 1.0; E is equivalent to 0.0; W, WP, WF and I are not included in the quality point average.

A grade of Incomplete (I) is an extension of time granted by the individual faculty member to a student to complete the requirements of a course in which he/she has already completed 80% of the work, but has been unable to finish the course requirements because of valid reasons. All "I" grades must be resolved within 8 weeks after the beginning of the next semester. After this time, the "I" will automatically become an "E" grade and will be so permanently recorded.

Graduate Students

The grading system for graduate students is as follows: Letter Grades — A, B, C, E(Failure), W (Withdraw), I (Incomplete) Students who, for valid reason, are unable to complete the requirements of a course during the semester, may receive a grade of I. Specific arrangements for completing the work before the end of the 8th week of the succeeding regular academic semester must be made before the grade of "I" is officially recorded. Failure to conform to this policy will result in the automatic entry of an official grade of "E" to replace the "I" after the 8-week period. THERE IS NOT GRADE OF "D" AT THE GRADUATE LEVEL.

Matriculating graduate students are urged to familiarize themselves with the academic standards required by the Graduate Division and by their specific program of study in order to comply with degree provisions.

ATTENDANCE POLICY

Students are expected to attend all scheduled class meetings of courses in which they are enrolled.

If absence from a class session is necessitated by illness, accident, or other valid reason, the student bears the responsibility to inform the instructor of the reason for the absence and to arrange to make up any class work and/or assignments.

OFFICIAL TRANSCRIPTS AND GRADE REPORTS

Official transcripts of courses taken in the Division of Graduate Education and Special Programs are issued only upon the written request of the student concerned. All transcripts which are issued will reflect the student's cummulative academic record. No request for a partial transcript will be honored.

All requests for transcripts must be made by the student concerned on the form which is available at the Office of Graduate Education and Special Programs and must be accompanied by the appropriate fee of $1.00 per copy. There is no charge for transcript requests addressed to the Registrar, Worcester State College. The request normally takes 48 hours to process. Transcripts which are to include the final grades of the existing session or semester will normally be available approximately 4 weeks after the close of the session or semester.

Grade reports will be mailed by the Division of Graduate Education and Special Programs as soon as they are processed to students who have no outstanding bills at the college.

CANCELLATION OF CLASS MEETINGS

In the event of cancellation of class sessions due to inclement weather or other unforseen circumstances affecting the operation and/or maintenance of college facilities, the community will be informed via radio. The following radio stations will be advised and will carry notices of any official cancellation: WBZ, WNCR, WNEB, WORC, WSRS, WTAG.

DO NOT CALL THE OFFICE OF GRADUATE EDUCATION AND SPECIAL PROGRAMS FOR THIS INFORMATION — Major difficulties occur when the phone lines are tied up by these calls. Every effort will be made to provide adequate notice of cancellation in order to avoid inconveniencing students and faculty who might be affected by any cancellation.

TEACHER VOUCHERS

Individual students holding valid teacher vouchers from Worcester State College are exempt from tuition charges only - and only for one course which may not exceed three (3) credits. Vouchers will be

honored for one (1) calendar year from the date of issuance. This year includes three semesters (the summer sessions are considered to be one semester). Vouchers are not transferrable under any circumstances. ALL REQUIRED FEES MUST BE PAID AT THE TIME OF REGISTRATION WHEN THE TEACHER VOUCHER IS PRESENTED.

VETERANS' BENEFITS INFORMATION

World War II and Korean War veterans pay only fees. Vietnam Era veterans who are eligible for benefits must pay full tuition and fees for courses taken in the Division of Graduate Education and Special Programs (in accordance with Chapter 457 Acts or 1976). They will receive their V.A., benefits on a monthly basis. The schedule of monthly payments to Vietnam Era veterans appears below. A Certificate of Exemption for Vietnam Era veterans is not applicable toward payment of tuition and fees for courses taken in this division. Therefore, all Vietnam Era veterans are required to make full payment for tuition and fees for these courses.

CHAPTER 34 G.I., BILL EDUCATION MONTHLY RATES (EFFECTIVE 10/1/76) INSTITUTIONAL TRAINING

	FULLTIME	3/4	1/2
Veteran	$292.00	$219.00	$146.00
Veteran & 1 Dep.	$347.00	$260.00	$174.00
Veteran & 2 Dep.	$396.00	$297.00	$198.00
Veteran & 3 Dep.	$420.00	$315.00	$210.00
Veteran & 4 Dep.	$444.00	$333.00	$222.00
Veteran & 5 Dep.	$468.00	$351.00	$234.00
Veteran & 6 Dep.	$492.00	$363.00	$246.00
Veteran & 7 Dep.	$516.00	$387.00	$258.00

All veterans must complete a form (available at the Office of Graduate Education and Special Programs) indicating their eligible status as approved by the Veterans Affairs Officer. Veterans are responsible for familiarizing themselves with the requirements and procedures necessary for securing benefits and maintaining eligibility for benefits. Veterans who have questions or problems regarding their legal benefits should contact: Lloyd Wheaton, Veterans Affairs Officer, Room A207 — Administration Building, Worcester State College. Telephone Number: 752-7700 (ext. 293, 348).

BASIC ECONOMIC OPPORTUNITY GRANTS

Individuals who have been awarded BEO Grants may use such grants to take course through the Division of Graduate Education and Special Programs providing that they.enroll in a minimum of 2 courses per semester in a program leading to a baccalaureate degree. For additional information, please contact: Elizabeth Keogh, Financial Aid Office, Worcester State College, Telephone Number: 752-7700 (ext. 214, 238).

FINANCIAL AID

All inquiries regarding financial aid should be directed to: Elizabeth Keogh, Financial Aid Office, Administration Building - Room A213, Worcester State College, 486 Chandler Street, Worcester, Ma 01602, Phone Number: 752-7700 (ext. 214, 238).

ACADEMIC ADVISEMENT

Matriculated Graduate Students:

It is strongly recommended that the guidance and advice of the staff of the Division of Graduate Education, the Advisor in the student's area of concentration, and the student's Guidance Committee be consulted and followed in order to avoid academic difficulties.

Non-Matriculated Students:

Assistance in the selection of and registration for courses is available at the Office of Graduate Education and Special Programs.

PARKING DECALS AND REGULATIONS

Students are required to obtain a parking decal for each automobile in order to make use of the campus parking facilities. Although a parking decal does not guarantee a parking space, cars which do not display a decal will be ticketed by the campus police. Should a motor vehicle be changed during the semester or session, a new decal is required.

BUILDING KEY

A — Administration Building; S — Science Building; L — Learning Resources Center; G — Gymnasium Building.

THE WORCESTER STATE COLLEGE BOOKSTORE

The Bookstore is located on the lower level of the Gymnasium Building. Bookstore hours will be posted outside the Office of Graduate Education and Special Programs. The Bookstore Refund and Exchange Policy is posted in the bookstore.

THE LEARNING RESOURCES CENTER

Combining the college's library and communication services divisions, the LRC offers the student a comprehensive and excellent information resource program. The main collection of over 130,000 volumes is complemented by more than 1000 current periodicals and a large collection of non-print materials. In addition, the LRC maintains a quality educational resources and children's collection, plus extensive number of research and serial material in microform.

The Communication Services Division provides a comprehensive technological service base, including audio-visual services, off-set copy center, instructional graphics and photography, film rentals and audio and video recording, providing faculty and students with an alternative series of instructional strategies and learning modes.

Students are urged to make use of the services provided by the LRC. Details regarding hours during which the LRC is open can be determined by calling the LRC Circulation Desk (752-7700), ext. 328); however, the normal hours of operation when classes are in session are: Sunday - 1 p.m. to 9 p.m.; Monday through Thursday - 8 a.m. to 10 p.m.; Friday - 8 a.m. to 4:30 p.m.; Saturday - Closed.

STUDENT HOUSING

Information regarding housing in the Worcester State College dormitories can be obtained by contacting: Mr. James Alberque, Assistant Dean of Students, Room A214 - Administration Building, Worcester State College. Phone Number: 752-7000 (ext. 363).

CHILD CARE CENTER

In the summer of 1975, for the first time in the history of the Worcester State College Summer Program, child care services were available to children of students attending the Second Summer Session. During the Summer of 1976, Worcester State College's Child

Care Center will again offer child care services during the Second Summer Session - from July 11th through August 19th. The Child Care Center is operated by a staff of professional teachers who are assisted by WSC undergraduate students. The Director of the Center is Dr. Josephine T. Polito, Chairperson of the Department of Early Childhood Education.

Children from the ages of three (3) to five (5) years of age will be accepted at the Child Care Center during this period. The Center will be open from 8:10 a.m. to 1:10 p.m., Monday through Friday. A minimal fee will be charged. The Center will operate on a nursery school basis, offering children a variety of educational programs tailored to the needs of the youngsters; e.g., reading readiness and mathematics readiness. The Center's summer program will also include field trips. Interested parents should obtain an application form at the Office of Graduate Education and Special Programs.

THE INSTITUTE FOR COMMUNITY SERVICES

The Institute for Community Service is the community outreach component of Worcester State College. It's main focus is to provide a linkage between Worcester State College and the surrounding community. The institute for Community Service accomplishes it s charge through the implementation, development and coordination of programs and projects with community agencies, organizations and groups.

The Institute for Community Service achieves its goals by providing services, consultancies and training through it's Centers of Community Education, Adult Education, Life Coping Skills, Right to Read, Spanish Cultural, Constitutional Government, Mid East Studies, Grantsmanship and New Horizons.

The Institute for Community Service acts as a brokerage house in that it coordinates the resources of Worcester State College to the needs of the community. The Institute for Community Service maximizes all the available human and material assets of the college to satisfy the concerns or solve the problems of the community thus developing and cultivating a mutual atmosphere of respect and trust between the community and Worcester State College.

LOUNGES

There are lounges in the Gymnasium and Science Buildings for student use. Eating and drinking must be confined to the lounges and should not take place in any other room or area in any campus buildings.

SMOKING

The cooperation of all members of the Worcester State College community is requested in confining smoking to the areas indicated in the campus buildings. Please do not smoke in any area bearing the NO SMOKING sign.

COURSE NUMBERING SYSTEM

The course numbering system is as follows:

6-000 level courses = Courses which are community-centered and community-oriented.

7-000 level courses = undergraduate level courses carrying undergraduate credit.

8-000 level courses = lower series graduate level courses carrying graduate credit. Qualified undergraduate students may enroll for undergraduate credit with the permission of the instructor.

9-000 level courses = upper series graduate level courses carrying graduate credit and open only to graduate students.

COURSE CREDITS

All courses carry three (3) credits unless otherwise indicated.

THIRD SESSION

SIX–WEEK SESSION

MAY 23 – JUNE 30

Days, times and faculty appear below each course description.

COMMUNITY – CENTERED

Cc6-100 INTRODUCTION TO FIREARM IDENTIFICATION. Designed to give the student a basic understanding of common firearm terminology; familiarize the student with rules and regulations pertaining to the Massachusetts Gun Control Acts of 1975; make the student aware of how the Crime Laboratory can aid the investigator in identifying evidence at the scene of a violent crime; dispell myths regarding the capabilities of the Firearms Indentification Expert; indicate to the student the proper methods of submission of physical evidence to insure that no breaks occur in the custodial chain of evidence. Active participation in a simulated firearm laboratory analysis and identification of weapons, projectiles, and cartridge casings is included. M&W; 7 - 10 p.m.; Duke.

Cc6-200 THE HISTORY AND ART OF CHESS. Development of the Royal Game from early times to its present form, a look at significant events in the present age of scientific play. What chess openings, strategy, tactics, and endgames an all about. A look at Bobby Fischer's impact on chess. T & Th; 4-7 p.m.; Williams.

Cc6-300 SELLING YOUR IDEAS IN PERSON – PUBLIC SPEAKING FOR EVERYONE. Stresses technique, not "talent", and focuses on logic, not luck, in overcoming problems in stage fright, memorization, clumsy articulation, and projection; basic formats in speeches for various purposes will be presented as models for the student's original work, which they will have the opportunity to See as well as Hear through the use of videotape throughout the course. M&W; 7-10 p.m.; A.M. Shea.

ART

Ar7-102 DRAWING IN VARIOUS MEDIA. Studio course designed to acquaint the student with the various potentials of ink, pastels, charcoal, watercolor, etc., alone or in various combinations. T&Th; 7-10 p.m.;

Ar7-202 FIGURE DRAWING. Drawing of the male and female using pencil, Conte, pastel, pen and ink, watercolor, etc. A model fee will be charged to enrollees in lieu of textbooks. T&Th; 4-7 p.m.; Merle.

AUDIOVISUAL MEDIA (see media)

BIOLOGY

Bi7-111 GENERAL BIOLOGY I. Current biological problems as they apply to man, especially molecular and ecological factors; an in-depth study of cellular and living systems with laboratory concentration on selected chemical and physical characteristics of life. M&W; 7-10 p.m.; Holle.

Bi7-112 GENERAL BIOLOGY II. Current biological problems as they apply to man, especially molecular and ecological factors; current biological problems such as pollution population, population, radiation, nutrition, ecology and conservation, with laboratory concentration on human problems as demonstrated in populations of animals and plants; two lectures and a two-hour laboratory per week. T&Th; 7-10 p.m.; Holle.

Bi7-152 GENERAL ZOOLOGY. Recommended for biology majors. Fundamental concepts of animal biology, including anatomy and physiology, development, genetics, taxonomy, ecology, and evolution; three lectures and a three-hour lab. per week. M&W; 6-10 p.m.; Boger.

Bi7-161 HUMAN ANATOMY AND PHYSIOLOGY I. Integration, organization and dynamics of normal human body systems; physicological experiments and dissection of organs and specimans; concentrates on pre-tissue biology, histology, skeletal, muscular, nervous, and cardio-vascular systems. 4 credits. Prerequisite: General Biology I and General Biology II. M&W; 6-10 p.m.; Russell.

Bi7-201 GENETICS. Cytological and biochemical basis of inheritance; nature and function of genetic material; Mendelian genetics; population genetics; demonstrations supplement lectures. Prerequisites: General Botany and General Zoology. T&Th; 7-10 p.m.; Paracer.

Bi8-145 TOXICOLOGY AND DRUGS. Deals with the subject of toxicology as a basic science; describes the principles involved in the study of the harmful actions of chemical agents only in regard to their use as examples; intended to give the properly prepared student an understanding & appreciation of the phenomena of the chemical-biological interactions. T&Th; 4-7 p.m.; T. Roberts.

Bi8-160 MICROBIOLOGY FOR THE NON-BIOLOGY MAJOR. Introductory course in microbiology for the student who is not a Biology major; course considers the morphology and the physiology of the microorganisms; focuses on the host factors, infection and immunity; destruction and inhibition of microorganisms are studied; selected bacterial pathogens discussed; unit on the viruses included; microbiological techniques and appropriate experiments stressed in the laboratory. June 6 - July 1; 8:30 a.m. - 12:30 p.m., M-Th; 8:30 a.m. - 10:00 a.m., Friday; W. Masterson.

Bi8-205 SOCIAL GENETICS. Population characteristics rather than the individual emphasized; population and demography aspects of general human genetics and behavior considered and discussed; minimum of statistical analysis. No laboratory. M&W; 7-10 p.m.; Roberts.

Bi8-285 ENTOMOLOGY. Structure, classification, anatomy and physiology and life histories of insects; emphasis on characteristics used in identifying all orders and many families of insects; each student makes insect collection, properly mounts and identifies specimens. Prerequisite: General Zoology. Four credits. M&W; 4-8 p.m.; Paracer.

Bi9-260 POPULATION ECOLOGY. Analysis of population growth, density, regulation and energy relationships; population interactions, organization, and evolution. Prerequisite: Two courses in ecology or consent of instructor, T&Th; 7-10 p.m.; Graham.

CHEMISTRY

Ch7-110-1 INTRODUCTION TO GENERAL, ORGAN, AND BIOCHEMISTRY I (lecture). Emphasis on general chemistry; atonomic structure, chemical bonding, periodic trends, stiochiometry, equilibria, reaction rates, radioactivity, and an introduction to organic chemistry. 3 credits. M&W; 7-10 p.m.; Merken.

Ch7-110-2 LABORATORY FOR INTRODUCTION TO GENERAL, ORGANIC, AND BIOCHEMISTRY I. 1 credit. T&Th; 7-10 p.m.; Merken.

Ch8-100 CHEMISTRY OF CARBON COMPOUNDS. Course in organic chemistry which concerns the major classes of organic compounds; topics include the structure, nomenclature, and stereochemistry of organic compounds; also includes reactions of organic compounds with emphasis placed on the mechanisms of these reactions.Prerequisites: 1 year of General Chemistry. T/Th; 7-10 p.m.; Cooper.

Ch9-422 STRUCTURE AND FUNCTION OF PROTEINS. Concerned

with the chemistry and biochemistry of proteins; topics include the classification, isolation, and amino acid sequencing of proteins; particular emphasis given to enzymes and the kinetics of enzyme-catalyzed reactions. M&W; 7-10 p.m.; Cooper.

COMMUNICATION DISORDERS

Cd7-115 INTRODUCTION TO HEARING SCIENCE. Basic information necessary for the field of Audiology; topics include acoustics, frequency and intensity measurements, and anatomy and physiology of the human ear as it relates to the study of hearing. Prerequisites: Speech Pathology, Phonetics, and Anatomy and Physiology of the Speech and Hearing Mechanisms. M&W; 4-7 p.m.; Lysaght.

Cd7-210 LANGUAGE DISORDERS. Processes interfering with normal language acquisition and disorders which disturb established language skills in children and adults; majors only; exceptions need permission of instructor. Prerequisites: Speech pathology, phonetics, Introduction to Hearing Science, audiology, Normal Development of Speech and Language and Anatomy and Physiology of Speech and Hearing Mechanism. T/Th; 4-7 p.m.; Cohen.

Cd8-500 INDEPENDENT STUDY: ADVANCED CLINICAL CASE MANAGEMENT. Supervised diagnostic and therapeutic experience with a speech and language caseload in the Worcester State College Communication Disorders Clinic; designed for those already possessing a Bachelor's degree in Communication Disorders and who wish additional supervised clinical experience in the acquisition of ASHA contact hours or for additional professional training; students will register during time designated for the first summer session. However, the schedule will be flexible and will be determined by the C.D. Department to meet the needs of individual students and clinic caseload. 1-3 credits. Enrollment by permission of instructor. July 5 - August 1; M-F; Dailey; Initial meeting June 30th.

Cd9-310 CLEFT PALATE. Study of embryological development of maxillo-facial anamolies, classification of clefts, surgical repair, associated defects, related speech and language disorders, and treatment. Prerequisites: Anatomy and Physiology, Speech Pathology, Normal Development of Speech and Language, Phonetics, Voice and Articulation. M&W; 4-7 p.m.; Cohen.

COMPUTER SCIENCE

Cs7-150 INTRODUCTION TO COMPUTER SCIENCE. Includes basic computer operation, capabilities and application in such fields as education, and the effect on modern society familiarization with terminology and equipment programming using the language BASIC: Non-technical approach. M&W; 4-7 p.m.; Mulcahy.

Cs7-210 MANAGEMENT DATA PROCESSING. Management applications of digital computers; file maintenance. Prerequisite: Introduction To Computer Science or equivalent. T&Th; 4-7 p.m.; Martel.

Cs8-200 COMPUTER PROGRAMMING WITH FORTRAN IV. Considers the uses of computers for mathematical and scientific problem-solving; topics include input-out statements, program branching, Do-loops, formatting, subscripted variables, subroutines, double-precision, character manipulation, and flowcharting. T&Th; 7-10 p.m. Mulcahy.

Cs8-250 COMPUTER PROGRAMMING WITH COBOL. Data organization and processing techniques used in large scale business, computer instruction codes, information storage and retrieval, and file maintenance; cobol applications in production, accounting, payroll and other information processing areas. T&Th; 7-10 p.m.; Martel.

COUNSELOR EDUCATION

Ce8-100 PRINCIPLES AND PRACTICES OF GUIDANCE. Provides the student with an understanding of the need, meaning and scope of guidance services; principles and practices involved in the following guidance areas are considered - introduction and philosophy of guidance, understanding the individual and his needs, essential orientation activities for the student, collecting, recording and evaluating data, interviewing and counseling, guidance through group activities, placement and follow-up activities, organization and evaluation of guidance and emphasis on the role of the classroom teacher in the guidance program. This course or its' equivalent is a prerequisite for all advanced courses in guidance. T&Th, 7-10 p.m.; Farrey.

Ce9-200 COUNSELING AND PSYCHOTHERAPY. Advanced course incorporating the concepts and techniques of psychotherapy into school counseling to treat the personality and behavioral disorders frequently encountered in a school setting; emphasis on the use of sustained counseling to ameliorate some of the factors that hinder the learning process; diagnosis, deciding course of treatment and dynamic factors involved in therapy considered; case material from the students; instructor's work used for illustration of special problems. Prerequisite: Techniques of Counseling. M&W; 7-10 p.m.; Gilmartin.

Ce9-250 GROUP COUNSELING I. Lecture-demonstration course designed to instruct the student in theories, methodology, and content of group counseling; principles of group counseling, with an analysis of the dynamics of the individual affecting and being affected by the group is covered; types of group counseling considered will range from information type groups to encounter groups, with an emphasis on the use of groups within an academic setting; emphasis on the necessity for sensitivity in human relationships as the counselor works with groups of teachers, and parents in the solution of educational problems. Prerequisite: Techniques of Counseling. Enrollment limited. Consent of Instructor required. M&W; 4-7 p.m.; Limoges.

Ce9-375 OCCUPATIONAL INFORMATION. Designed to help administrators, counselors, and teachers to better meet the needs of youth through complete guidance techniques; organized to help develop competencies in the following areas of Occupational Information - classification and description of jobs and industries, occupational trends in relation to socio-economic changes, collecting information, filing information and evaluating information about occupations and training; emphasis placed upon using Occupational Information with groups and with individuals in the public school system. Prerequisite: Principles of Guidance. T&Th; 4-7 p.m.; Farrey.

ECONOMICS

Ec7-203 INDUSTRIAL ORGANIZATION. Analysis of market competition and monopoly and their effects upon the concentration of economic activity and the exercise of market power; emphasis on Government policies to maintain or regulate competition in the public interest. Prerequisite: Principles of Economics I. T&Th; 7-10 p.m.; G. Kelley.

Ec8-500 URBAN ECONOMICS. Concerned with the economic view of cities and their problems; economic aspect of the following metropolitan concerns discussed - housing, traffic congestion, land use patterns, urban poverty, and the fiscal plight of cities; other topics covered are economics of urban education and some of the various federal government programs which relate to the above. Prerequisite: any Economics course. M&W; 7-10 p.m.; Trimby.

EDUCATION

Adult, Community and Urban Education

Ed8-180 WORKSHOP IN ADULT EDUCATION: EVALUATION OF EDUCATION MATERIALS. Participants will evaluate and/or create materials suitable for teaching academic skills including reading, writing, speaking, listening, spelling, grammar and mathematics to adults; life-coping skills such as personal development, consumer education, and employment training; materials to be evaluated will come from adult learning centers will be examined and rated according to readability level, skill development, level of sophistication, interest level, etc.; some new materials will be introduced and analyzed in the same fashion. June 21 - July 1; M-F; 8:30 a.m. - 12:30 p.m.; Evanson.

Ed8-270 COMMUNITY COMMUNICATION AND ORGANIZATION. Special emphasis placed on the development of Community School Advisory Councils; the role, policy and purpose of these groups developed; other neighborhood communication mechanisms will be explored including various agency involvement. M&W; 7-10 p.m.; Simonoini.

Ed8-275 COMMUNITY POWER FOR ADULTS. Exploration of neighborhood power with an emphasis on issue orientation; this is a "how to do it" course which provides practical experience; participants will consider the theoretical background of community organization and then devleop a plan to act on a neighborhood issue. M&W; 7-10 p.m.; Staff.

Ed9-245 SOCIAL AND CULTURAL FOUNDATIONS OF URBAN EDUCATION. Required course for majors in urban education; exploration of the social and cultural factors which influence urban youth as well as urban schools; the study of contemporary reforms in Urban Schooling, alternatives to present structures and projections for the future also included. T&Th; 4-7 p.m.; Quint.

Ed9-255 DIRECTED STUDY IN ADULT EDUCATION. Intended for graduate students who have a background in the field and who have the opportunity to critically analyze a special problem or personal interest in Adult Education; requirements include a log of experiences accummulated during the investigation or a research paper related to the problem. Students must obtain permission from the director of Adult Education in order to register. 1-6 credits. M&W; 4-7 p.m.; Fox.

Ed9-291 INTERNSHIP IN PROGRAM DEVELOPMENT IN COMMUNITY EDUCATION. Designed to develop practical experience in the field in a leadership position; placement under supervision in a community school or other approved agency. Consent of the instructor is necessary for registration. M&W; 4-7 p.m.; Staff.

Ed9-295 INDEPENDENT STUDY IN COMMUNITY EDUCATION. Devised for graduate students with a background in Community Education; student will work closely with the instructor in the compilation and development of information concerning a particular problem that is current in the field. Consent of the instructor is necessary for registration. M&W; 4-7 p.m.; Staff.

Early Childhood Education

Ed8-320 CURRICULUM FOR EARLY CHILDHOOD EDUCATION. Attention focused on curriculum and daily activities designed to enable young children to use their developmental powers to the fullest; students will consider the ways and means by which the teacher creates an environment rich in learning opportunities, geared to the age-level characteristics of young children; new methods being implemented in England and the United States will be included. T&Th; 4-7 p.m.; Polito.

Ed8-335 PRACTICUM IN EARLY CHILDHOOD EDUCATION. Intensive three-week, supervised field experience involving daily interaction with young children of ages three-five who will be attending the Worcester State College Child Care Center during the summer; a seminar included. 3 credits each practicum. TBA; TBA; Staff.

Ed8-345 THE PRE-SCHOOL CHILD WITH SPECIAL NEEDS. Detection, evaluation and remediation of learning disabilities in young children from three years; emphasis placed on various informal and formal methods of assessment; demonstration and use of existing programs and materials used with children. M&W; 4-7 p.m.; Bunuan.

Ed8-347 DEVELOPING MATERIALS FOR YOUNG CHILDREN WITH SPECIAL NEEDS. Focus on the design and construction of materials to meet the specific needs of young children; opportunities given to examine conventional materials and programs as they apply to children with special needs; rationale for selection of materials for children with special needs shall be developed; students will demonstrate competency by preparing and presenting learning plans and materials for actual or hypothetical special needs pupils. Prerequisite: Ed8-345 or by permission of instructor. M&W; 7-10 p.m. Gannon.

Ed9-385 INDEPENDENT RESEARCH IN EARLY CHILDHOOD EDUCATION. For students wishing to pursue independent study in a specialized area of Early Childhood Education; greater understanding and appreciation of early childhood should result. Faculty members from other disciplines may also be called in to counsel the student in resources and approaches. TBA; TBA; Polito.

Elementary and Secondary Education

Ed7-212 INTRODUCTION TO TEACHING AND LEARNING I. Continuation of the systematic development of the student's understanding of teaching and learning; in-depth study of general teaching procedures and a comparison of curriculum patterns and learning experiences; and understanding of self in relation to a career decision in the field of education and related areas. Prerequisite: Introduction to Teaching and Learning I. T&Th; 4-7 p.m.; Joseph.

Ed7-245 EDUCATIONAL PSYCHOLOGY. Learning and developmental processes, motivation, retention, relationships of intelligence and achievement, personality, emotional aspects of learning. Prerequisite: General Psychology I. T&Th; 7-10 p.m.; Guarini.

Ed7-280 HISTORY AND PHILOSOPHY OF EDUCATION. Contemporary problems of education in relation to selected ancient, medieval, modern philosophers of education. M&W; 4-7 p.m.; Quint.

Ed7-300 PRINCIPLES AND CURRICULUM OF SECONDARY EDUCATION. Prerequisite for student teaching required

for secondary education minors; goals, curriculum, management, school organization; pupil personnel, teaching techniques, contemporary issues. Prerequisite: Open to Juniors and Seniors. M&W; 4-7 p.m.; Staff.

Ed8-405 CHILDREN UNDER STRESS. Abuse/neglect, symptoms, of child stress, disillusionment, symptoms of parental distress; resolution/community responsibility. M&W; 4-7 p.m. Weisbauer.

Ed8-418 DEVELOPING INDEPENDENT MATHEMATICS FOR CHILDREN. Survey of commercial materials and teacher-made games which can be adapted for use in traditional and open-classroom situations; explore methods for co-ordinating mathematics activities to strengthen logical thinking as well as the typical quantitive skills associated with mathematics curriculums; produce and organize many independent mathematics activities for your own classrooms in a workshop atmosphere. M&W; 4-7 p.m.; Stefanini.

Ed8-470 LEARNING CENTERS: HELP OR HINDRANCE? Consideration of the development of Learning Centers; effectiveness and limitations; emphasis on techniques and approaches to their use. M&W; 7-10 p.m.; Snelgrove.

Ed8-758 ENVIRONMENTAL EDUCATION. Course will help current or prospective teacher environmental awareness; an ability to assess the significance of environmental problems and a confidence in interacting with agencies which plan, monitor, or regulate in the environmental area in his students; need is interdisciplinary and should be especially relevant in Social Studies, Economics, Governmental Studies, and Science areas; class will discuss strategies and resources as well as develop a project for the participant's classes in an effort to involve today's youth in the current decision-making processes which are limiting the options of future generations. T&Th; 4-7 p.m.; Sheperdson.

Ed8-927 EDUCATIONAL MEASUREMENT AND EVALUATION. Considers the nature of measurement, its purpose and value in the learning situation, the types of measuring techniques to be employed; attention given to the development of certain statistical concepts facility in the selection and use measuring instruments, and in the interpretation of data secured. T&Th; 7-10 p.m.; Staff.

Ed9-110 LAW FOR THE TEACHER. *(SEE LEADERSHIP).*

Ed9-420 SEMINAR IN CURRENT ISSUES IN ELEMENTARY EDUCATION. Should be elected near the conclusion of the student's graduate program in Elementary Education; educational specialists meet with the students to present contemporary problems and to participate in discussions; content consists of current issues or questions raised by the students and others by the members of the Elementary Education Department's Graduate Faculty; symposium approach will be flexible and contemporary; readings, participation in the Seminar, and a written treatise of the pros and cons of major issues required. Prerequisites: Three courses at the graduate level in elementary education which have been approved by the student's advisor. T&Th; 7-10 p.m.; Johnson.

Ed9-720 ANALYSIS OF CLASSROOM INTERACTION. Inspection, discussion, use, and analysis of various systems of observing and recording classroom verbal and nonverbal behaviors; special emphasis on Flanders system. T&Th; 4-7 p.m.; Zax.

LEADERSHIP & EDUCATIONAL ADMINISTRATION

Ed9-100 FOUNDATIONS OF SCHOOL ADMINISTRATION. Basic introduction to the principles of school administration; topics include school population and student personnel, the organization and substance of the educational program, personnel of the school system, the physical plant and its facilities, governmental structure for education and intergovernmental relations, internal school organization, financing of education, school business administration, and the administrative process. M&W; 7-10 p.m.; Staff.

Ed9-110 LAW FOR THE TEACHER. Basic course in the investigation of the Laws of the Commonwealth of Massachusetts and the laws applicable to Massachusetts School Systems; application of the historical reference of law to the modern interpretation of school problems such as locker search, drugs, discipline, attendance and related problems of teachers. T&Th; 7-10 p.m.; Tattan.

Ed9-120 HUMAN RELATIONS FOR ADMINISTRATORS. Examines the processes by which individuals attempt to reconcile their needs with the needs and demands of others; areas to be explored include relationships with children, with parents, with fellow-teachers, with school board members, and with other school personnel; case study approach to the problems of interpersonal and intergroup relations will be utilized, Video tapes and recordings developed as well as the use of simulation techniques. Participants will be expected to contribute their experiences for group study. T&Th; 7-10 p.m.; Buckley.

Ed9-127 ORGANIZATION AND ADMINISTRATION OF THE ELEMENTARY SCHOOL. Elementary school administration and organization; the role of the principal as an administrator in the larger setting of present day education stressed; specifically in the course will deal with the principal's role in organizing for teaching and learning, administering pupil personnel and special services and integrating school and community life. T&Th; 4-7 p.m.; Staff.

Ed9-180 MANAGEMENT SYSTEMS FOR EDUCATIONAL ADMINISTRATION. Practical investigation of the role of the educational administrator as a manager; comparison of the superintendent and principal as a relevant part of a management system; probe of the relationship of leadership, management systems and basic management organization as they relate to the school system. M&W; 7-10 p.m.; Provo.

Ed9-190 SPECIAL PROBLEMS IN SCHOOL ADMINISTRATION. Practicum experience designed around a special problem in administration of a school system. M&W; 4-7 p.m.; F. Masterson.

Reading and Language Arts

Ed8-500 READING IN THE ELEMENTARY SCHOOL. Includes an intensive overview of the basic reading skills; effective teaching strategies and utilization of multi-media in reading instruction; assesses reading growth and provision for a wide range of reading abilities in the classroom. T&Th; 4-7 p.m.; Fraumeni.

Ed8-510 INSTITUTE: OPEN SESAME – THE TREASURES OF COMMUNICATION SKILLS. A two-week intensive institute embracing the various facets of the reading-language arts program for educators on primary, elementary, and secondary levels; speakers of national renown will share their ideas so that you may more creatively return to your school with new strategies; group sessions offer the opportunity to plan programs and design materials for motivating and enriching learning. June 27 - July 8; (9:00 a.m. to Noon, 1:00 - 3:00 p.m.) $95.00 fee inclusive for this Institute. Separate registration required. Please contact the Graduate Office for further information.

Ed9-505 CURRENT TRENDS IN THE TEACHING OF READING. Overview and evaluation of recent innovations in the teaching of reading; review of current methods of teaching the basic reading skills; demonstration and critical analysis of multi-media used in reading. Prerequisite: A previous course in Reading or permission of instructor. M&W; 4-7 p.m. Gorman.

Ed9-516 TEACHING LANGUAGE AND READING IN THE INNER CITY. Designed to help teachers understand and be able to alleviate reading and language problems which many children from inner city environments must cope with; emphasis placed specifically on the difficulties many black children encounter in school in language arts classes. Prerequisite: A reading course at the undergraduate level taken within the past five years. M&W; 7-10 p.m.; Staff.

Ed9-530 INDIVIDUALIZING READING AND LANGUAGE ARTS IN ELEMENTARY SCHOOL. Focus on means of teaching all of the skills children need to be able to master reading and language arts and insure their success in these areas; concentration on teaching reading and language arts skills through children's books; innovative methods, materials and games devised by participants in the course to meet the individual needs of children; curriculum materials and professional texts evaluated and analyzed to cull out effective ideas that can be adopted and implemented for use in elementary classrooms; recommended course for Master's degree candidates pursuing a concentration in language arts. M&W; 4-7 p.m.; Flaherty.

Special Needs Education

Ed7-260 INTRODUCTION TO CHILDREN WITH SPECIAL NEEDS. Course in Learning Disabilities designed to orient prospective teachers in the many-faceted problems of children with special needs; recent trends and teaching strategies will be discussed; consideration given to discrepancies in each area of deviation. Prerequisite: Child Growth and Development. T&Th; 4-7 p.m.; Griffiths.

Ed9-610 ANALYSIS AND INTERPRETATION OF CHILDREN'S BEHAVIOR AND LEARNING ENVIRONMENT (Formerly known as Assessment of Specific Learning Needs). Overview of the evaluation techniques in use for group and individual assessment of perceptual, motor, and conceptual functioning; general capabilities and academic performance of the child with special needs; examination of test data emanating from supportive personnel will be analyzed and interpreted in light of children's needs. Class size is limited. Prerequisite: Ed9-600. M&W; 4-7 p.m.; Schacter.

Ed9-620 DEVELOPMENT AND IMPLEMENTATION OF AN INDIVIDUALIZED EDUCATIONAL PLAN FOR CHILDREN WITH SPECIAL NEEDS (formerly known as Methods and Materials for Children with Learning Disabilities). Process and task analysis; the scope and sequence of perceptual, congnitive and academic materials; commercial and informal programs; the evaluation of materials; progress reporting; classroom organization and main-streaming techniques. Class size is limited. Prerequisites: Ed9-600, Ed9-610. T&Th; 7-10 p.m.; Brown.

Ed9-625 CLASSROOM MANAGEMENT TECHNIQUES FOR CHILDREN WITH SPECIAL NEEDS. Discussion of the basic principles and procedures for behavior management, its implementation in a school setting, evaluation, and alternative techniques; each student is expected to conduct a behavior management project as a course requirement. T&Th; 7-10 p.m.; Loso.

Core

Ed9-960-1 RESEARCH IN EDUCATION. Use of appropriate re-
Ed9-960-2 search methods in selection and evaluation of data and assisting the graduate student in the preparation and understanding of a research report; emphasis on the nature of and criteria for evaluating research, library, techniques and format of report, and necessary statistical concepts and methods of research; student is expected to demonstrate his knowledge of these in a term research study. Prerequisite: A bachelor's degree from an accredited college. Ed9-960-1, M&W; 4-7 p.m.; Hilton. Ed9-960-2, T&Th; 4-7 p.m.; Hilton.

Ed9-970-1 ADVANCED PHILOSOPHICAL FOUNDATIONS OF
Ed9-970-2 EDUCATION. Oriented towards the total self of the student in terms of rationalistic pragmatic and existential-humanistic philosophies of education; emphasis on deepening, raising, and broadening of one's consciousness about the philosophical phenomena of education in the contexts of teaching, and learning, knowledge and experience, and school and society; students are expected to do an in-depth philosophical study of education drawing upon the sources of knowledge and experience for self-development. Prerequisite: Ed7-280 - History and Philosophy of Education(or equivalent by permission of instructor.) Ed9-970-1, M&W; 7-10 p.m.; Traub. Ed9-970-2, T&Th; 4-7 p.m.; Traub.

Ed9-980 ADVANCED PSYCHOLOGICAL FOUNDATIONS OF EDUCATION. Studies and evaluates the role of those environmental, mental and extra-mental forces which motivate all learners to utilize fully and effectively their capacities, aptitudes and attitudes. A systematic analysis of the major schools of psychology with special attention focused on the contemporary schools. Attention given to the teachers' role in the learning process and special emphasis on the application of these principles to specific classroom situations. Prerequisite: Educational Psychology or permission of the Instructor. Ed9-980-1 M&W; 4-7 p.m.; J. Jones. Ed9-980-2 T&Th; 7-10 p.m.; J. Shea.

ENGLISH

En7-101 ENGLISH COMPOSITION. Considers a review of English mechanics and writing principles; emphasis on writing, rhetorical analysis of selected readings and instruction in the techniques of research and in the writing of a research paper. T&Th; 7-10 p.m.; TBA.

En7-110 SURVEY OF AMERICAN LITERATURE I. Considers American literature up to the Civil War, Colonial and federal periods, and transcendentalists. M&W; 7-10 p.m.; Gibbs.

En7-120 SURVEY OF ENGLISH LITERATURE I. Development of English literature from the beginnings to 1798. Required of all English majors. T&Th; 7-10 p.m.; Ellis.

En7-272 CONTEMPORARY DRAMA. Survey of the more significant plays of the contemporary theatre; concentration on the dramatic works and theories of Albee, Artaud, Beckett, Brook, Genet, Grotowski, Ionesco, Miller, Williams, and Pinter. T&Th; 4-7 p.m.; Todd.

En7-282 CONTEMPORARY POETRY. Concentrates on poets whose major work has occurred after World War II; special attention to poets presently writing and publishing. T&Th; 7-10 p.m.; Gibbs.

En8-390 SPECIAL PROBLEMS IN LITERATURE: THREE NEW ENGLAND POETS – DICKINSON, ROBINSON, FROST. Emily Dickinson, Edwin Arlington Robinson and Robert

Frost resemble each other most in their independence as poets. Though their work is "native" and even regional in character, none of them is part of any clearly marked poetic school or movement. This course will be an in-depth study of the lyric poetry of these three poets. M&W; 4-7 p.m.; Ellis.

En9-430 THE ROMANTIC FLOWERING IN AMERICAN LITERATURE. Study of American reaction to the Age of Reason; development of Romantic Idealism in the origins of a fiction and a nature poetry specifically American; since Romantic ideals in America reach the apex of their philosophic expression in Transcendentalism, Emerson and Thoreau will form a major part of this course. M&W; 4-7 p.m. Ayer.

En9-570 THE SEVENTEENTH CENTURY. Donne and the Metaphysical poets, Jonson and Milton; emphasizes the poetry of the period, excluding the drama and epic. M&W; 7-10 p.m. Ayer.

GEOGRAPHY

Ge7-225 INTRODUCTION TO OCEANOGRAPHY. One semester course in general oceanography designed to acquaint students with the principles of physical, chemical, biological, and geological oceanography; students should obtain an appreciation for the complexities of the marine sciences and a broad background that can be related to the study of other sciences; an attempt to stimulate the student interest in the field rather than becoming an authority on the oceans. M&W; 4-7 p.m.; Chapman.

Ge7-410 POLITICAL GEOGRAPHY. Space structures, growth, problems of a nation-state-modern world political problems - studies of a few selected areas. Prerequisite: Principles of Physical Geography, Principles of Cultural Geography. M&W; 7-10 p.m.; Herd.

Ge8-400 GEOGRAPHY OF WINE. Cultivation of wine grapes and their manufacture into wine; considers a regional stress — United States, France, Germany, and Italy; 2nd topical stress — physical geographic relationships, manufacture, marketing and consumption; wine sampling required. T&Th; 7-10 p.m.; Thompson.

Ge8-460 THE GREAT ICE AGE. Survey or the influences of the legacies of the Ice Age in earth history as they are reflected in landforms, soils, natural vegetation, animal life, and the development of early man; emphasis on the glaciation of the North American continent and the subsequent evolution of its present landscape. T&Th; 7-10 p.m.; Lingner.

HEALTH

He8-175 CREATIVE TEACHING IN HEALTH. Discussion of content, methods and skills of teaching health education at the elementary/secondary level; emphasis placed on the creative aspects of teaching with a focus on values clarification, positive attitude building, and development of positive health behavior in each student; new materials in health teaching will be used and discussed. T&Th; 4-7 p.m.; TBA.

He8-200 PERSONAL HEALTH. Basic scientific principles in the health sciences; a conceptual approach to the physical, mental, and social dimensions underlying personal health; motivation for intelligent self-direction of health behavior; emphasis upon responsibilities as citizens, teachers, and parents. T&Th; 7-10 p.m.; TBA.

He8-250 HUMAN SEXUAL AWARENESS. Utilizes a graded, developmental and sequential series of small group experiences designed to assist students in coming to a state or condition of positive sexuality concept regarding his or her own sexuality; emphasis on the "I" rather than the "We" of thinking and feeling. M&W; 7-10 p.m.; Reed.

He8-330 VALUES CLARIFICATION IN HEALTH EDUCATION. Teachers are trained in approaches such as rank-ordering, continuum, criteria of a value, the valuing process, techniques for enhancing the "valuing strength" of each child, and a host of strategies designed to aid youngsters in developing this vital kind of awareness. Class will involve teacher participants in experiences for clarifying their own values that are easily transferable to classroom. M&W; 4-7 p.m.; Reed.

HISTORY

Hi7-101 HISTORY OF WESTERN SOCIETY I. Survey of great ideas in the History of European Civilization that have shaped the modern mind. T&Th; 4-7 p.m.; Saliba.

Hi7-111 UNITED STATES HISTORY I. Survey of the political, social, economic and diplomatic currents from the colonial era to 1865. T&Th; 7-10 p.m.; A.G. Mitchell.

Hi7-112 UNITED HISTORY II. Survey of American history from the Reconstruction period to the present. M&W; 7-10 p.m. A.G. Mitchell.

Hi7-223 HISTORY OF MODERN FRANCE. From the Revolution to the Fifth Republic; changes in French institutions due to social, economic, and political forces. T&Th; 7-10 p.m.; Hedman.

Hi8-105 HISTORY OF WESTERN LAW. Rise of law among the near-eastern peoples; Hebrew, Greek, and Phoenician Law; the rise of Roman Law during the periods of the Republic the Principate, and the Empire; codification of law under Justinian; the rise of the Common Law in England; conflict between Common and Roman legal systems; spread of the two basic systems of law to the New World. M&W; 7-10 p.m.; Spector.

Hi8-460 HISTORY OF MODERN GERMANY SINCE 1914. Focus upon the emergence of mass politics and hysteria in German society; the conflict of ideologies and rationalization of violence. M&W; 4-7 p.m; Yuan.

Library Science — Media *(See Media)*

Management

Mg7-110 INTRODUCTORY ACCOUNTING I. Basic structure and fundamental concepts and principles of accounting; includes nature and classification of accounts, development of accounting records including special purpose journals, controlling accounts and subsidiary ledgers, and other systems and controls; establishment of the accounting cycle and preparation of financial statements covered; consideration of such areas as sales purchases, cash receivables, payables, inventories, deferrals, accurals, and plant assets included. M&W; 7-10 p.m.; Harris.

Mg7-320 BUSINESS LAW. Designed to acquaint the student with the sources of law, its history and development and its classifications through the study of the fundamental rules and principles of law in the area of contracts, agency, negotiable instruments, property sales and other appropriate subjects. Prerequisites: Mg7-200; may be taken concurrently. T&Th; 4-7 p.m.; Brooks.

Mg7-403 FINANCIAL MANAGEMENT I. Designed to introduce the student to the problems of the finance function and to

the responsibilities of the Chief Financial Executive and his staff in ongoing operations of the firm; emphasis on efficient allocation and uses of funds; includes forms of business organization, Financial Statements, Analysis of Solvency and Profitability, Cash Budgeting, working capital management, short term financing, and the meaning and use of financial leverage. Prerequisites: Problem-Solving In Organizations, Organizational Dynamics (both may be taken concurrently) and Managerial Accounting and Budgeting. M&W; 4-7 p.m.; Rapuano.

Mg7-490 ADMINISTRATIVE STRATEGY FORMULATION AND IMPLEMENTATION. Develops skills in analysing general management problems of development and implementation of strategy, and in presenting and defending well-reasoned oral diagnosis of, and recommended solutions for these problems; ability to apply techniques, concepts, and theories learned in other areas to analysis and solution of problems; cap-stone course drawing on information previously provided to the student in finance, accounting, marketing, general management, economics, and the behavioral sciences. Prerequisites: Mg8-401, Mg8-404, Mg8-406; may be taken concurrently or permission of instructor. M&W; 7-10 p.m.; Juralewicz.

Mg7-553-1 SELECTED TOPICS IN HEALTH ADMINISTRATION: HEALTH CARE IN TRANSITION. Selected topics in health administration of mutual interest to the student and faculty. M&W; 7-10 p.m.; Kaplan.

Mg7-573-1 SELECTED TOPICS IN BUSINESS ADMINISTRATION: APPLICATION OF ORGANIZATIONAL BEHAVIOR THEORIES. M&W; 4-7 p.m.; Juralewicz.

Mg7-573-2 SELECTED TOPICS IN BUSINESS ADMINISTRATION: MANAGEMENT TRAINING & DEVELOPMENT. M&W; 4-7 p.m.; Kane.

Mg7-573-3 SELECTED TOPICS IN BUSINESS ADMINISTRATION: INTERMEDIATE ACCOUNTING. T&Th; 4-7 p.m.; Harris.

Mg7-671 INTERNSHIPS IN BUSINESS ADMINISTRATION. The Management Program provides majors the opportunity to gain practical experience in the operations of business. Qualified students can spend a variety of part-time or full-time internships with copperating business firms for varying lengths of time. The student participates in various managerial activities under the supervision of experienced executive and managerial personnel. Students must participate in the Internship Seminar and submit a written report upon completion of the program. An evaluation of the student's effort will be secured from officials of the organization in which he interned. T&Th; 7-10 p.m.; Kane.

MATHEMATICS

Ma7-115 COLLEGE ALGEBRA AND TRIGONOMETRY. (Management). This course will give management majors the background in algebra and trigonometry needed for calculus. T & Th; 7-10 p.m.; Kotzen.

Ma7-120 COLLEGE TRIGONOMETRY. Plane trigonometry useful in the teaching of mathematics in the secondary schools and required for the study of calculus; trigonometry of the general angle, the use of logarithms, solution of right triangles, radian measure, identities and other topics. M & W; 7-10 p.m.; Hill.

Ma7-250 INTRODUCTION TO STATISTICS I. Probability and basic statistical techniques and decision making as they are applied to data. M & W; 4-7 p.m.; Schoen.

Ma7-302 CALCULUS I. (for management). Rate of change of a function; limits, derivatives of algebraic functions and applications of the derivative; integration of algebraic functions and trigonometric functions. 4 credits. M & W; 7-10 p.m.; Schoen.

Ma7-310 CALCULUS III. Conic sections, polar coordinates and vector analysis. Prerequisite: Calculus II. T & Th; 7-10 p.m. R. J. Perry.

Ma8-600 ORDINARY DIFFERENTIAL EQUATIONS. Techniques, numerical procedures, existence, uniqueness and properties of solutions of ordinary differential equations. Prerequisite: Calculus sequence. M & W; 4-7 p.m.; Redding.

Ma9-100 ANALYSIS I. Topics including elementary topology, continuity, differentiation, integration, infinite series, as well as other topics as time permits. Prerequisite: Calculus sequence. T & Th; 7-10 p.m.; TBA.

MEDIA

Me8-115 AMERICAN ENTERTAINMENT THROUGH THE AGES. Examination of the performances seen and heard by the population of this country from the Colonial period through the present; emphasis will be on live events - plays, musicals, circuses, vaudevilles and others; contributions of motion pictures and television will also be included. M & W; 7-10 p.m.; Seiffer.

Me8-140 INTRODUCTION TO WESTERN DANCE: FORM AND FREEDOM. Unique opportunity to work with the outstanding New England repertory dance group, Concert Dance Company, in a format covering both theory and practice of various aspects of Western dance; lectures will introduce the student to the history of basic classic dance forms in Western civilization; workshops will involve the novice in a myriad of technical styles, as well as practice in improvisation and composition; course will culminate in an informal performance by students and company members. T & Th; 7-10 p.m.; Benjamin.

Me8-245 DESIGN AND PREPARATION OF INSTRUCTIONAL MATERIALS. (formerly Me8-145). Designed to enrich the participants instructional performance by developing techniques of visual presentation of subject materials; pictorial presentation of instructional materials through non-artistic skills will be developed; techniques apply at all levels of instruction, but the subject matter will be related to the specific interest of each participant. Limited to 20 students. June 27-July 8; M-F; 8:30 a.m.-12:30 p.m.; Davis.

Me8-250 PHOTOGRAPHY I. (formerly Me8-270). Study of the methods of photographic communication; instruction includes the craft of camera handling, black/white film processing and printing, theory of film emulsions and exposure, camera systems and optics; emphasis on the production of images as a means by which the student learns to use the tools and materials of B/W photography; through discussions and critiques, the student increases his/her ability to make clear visual statements; seminars will be conducted in contemporary photographic communication. No prerequisite. Adjustable camera required. Limited to 20 students. $10 laboratory fee. Not open to students who have completed Me-150. M & W; 4-7 p.m.; Bullens.

Me8-256 COLOR PHOTOGRAPHY I. Use of color transparency film and 1993 color positive printing procedures; color composition, color saturation, color balance, E-4 (modified) processing, camera filtration, 1993 printing procedures and color printing filtration with gel filters. Students will purchase their own film, printing paper and camera filters. It is recommended that students purchase a set of color printing gel filters. Limited to 12 students. Open to students who have completed 6 semesters of photographic education, or who have advanced photographic standing and the instructor's written permission. T & Th; 4-7 p.m.; Byers.

Me8-257 SUPER 8 FILM PRODUCTION I. (formerly Me8-157, Cinematographic Techniques). Upon completing this course the student will be able to demonstrate a verifiable understanding of and a basic competence in the theory and techniques of visualization required in the production of motion pictures using the super 8 mm. format; emphasis placed on laboratory work in order to develop familiarity with pictorial organization and equipment use. Cameras will be supplied by the college but students must furnish their own film and processing. Limited to 20 students. T & Th; 7-10 p.m.; Bullens.

Me8-265 AUDIO PROGRAM PRODUCTION. Principles and techniques of producing sound programs; includes scripting, vocal talent casting and directing, and electronic modification of program material; laboratory experience in production. Limited to 16 students. M & W; 7-10 p.m.; R. Jones.

Me8-500 REFERENCE SOURCES AND SERVICES IN THE SCHOOL LIBRARY/MEDIA CENTER. Provision of an excellent collection of reference sources and services to students K-12 is the objective; includes practical problems and research into a subject area of bibliography of interest to school library/media specialists; course will satisfy, in part, the requirements of the public school librarian's certificate. T & Th; 4-7 p.m.; McGough.

Me8-640 CATALOGING FOR A LEARNING RESOURCES CENTER. Develop the technical service competencies required to procure and organize materials for a school learning resources center; through laboratory exercises, students will apply principles of cataloging and classification using the ALA ANGLO-AMERICAN CATALOGING RULES, the AECT STANDARD FOR CATALOGING NONPRINT MATERIALS, the DEWEY DECIMAL CLASSIFICATION, and the SEAR'S LIST OF SUBJECT HEADINGS. Not open to students who have completed Me-315 (Cataloging and Organizing Learning Materials). M & W; 4-7 p.m.; Piccolo.

Me9-700 BIBLIOGRAPHIC DATA PROCESSING. Provides the background needed by the modern librarian who must deal with the planning and implementation of automated library systems; includes evaluations of acquisition and ordering, catalog production, circulation control, inter-library loan, information retrieval systems involving the use of electronic computers. Open to students in library science/media concentration or with consent of the instructor. M & W; 4-7 p.m.; Das Gupta.

MUSIC

Mu7-240 MUSIC APPRECIATION. Increases knowledge and enjoyment of music. Periods include Renaissance, Baroque, Classical, Romantic and Twentieth Century. T & Th; 7-10 p.m.; L. Celona.

Mu8-390 SURVEY OF MUSIC IN AMERICA. Survey of music history and literature in America including gospel, spirituals, jazz, popular and classical music. M & W; 7-10 p.m.; L. Celona.

Mu8-500 FUNDAMENTALS OF MUSIC. Designed to provide students with the knowledge of notation, major and minor scales, intervals, rhythms, chords, elementary harmony and basic knowledge of the piano. No previous knowledge of music is required. M & W; 7-10 p.m.; Kaminsky.

NATURAL SCIENCE/PHYSICS

Ge7-225 INTRODUCTION TO OCEANOGRAPHY. (See Geography).

Ns 7-106 SCIENCE AND SOCIETY. Physics examined in a historical and social context; the impact of science on man's interpretation of the natural world, social activities such as economics and war, and the "humanistic" disciplines; recommended for non-science majors interested in studying the implications of science in the modern world. T & Th; 7-10 p.m.; Chapman.

Ns8-501 AEROSPACE SCIENCE II. (AVIATION/AEROSPACE WORKSHOP FOR EDUCATORS). Offered with the active support of the Massachusetts Association of Science Teachers, Massachusetts Aviation Education Association, National Aerospace Education Association, Aerospace Education Arm of the Civil Air Patrol, National Aeronautics and Space Administration, Federal Aviation Administration, MASSPORT Authority, and others. This course is designed for teachers at any level of instruction; direct classroom applications of aerospace history, technology, physical, biological and social sciences, and career education will emphasize the unique and practical advantages of integrating these subjects into a wide range of educational disciplines; instruction will include lectures and "hands-on" workshops conducted by experts, in addition to a number of exciting field trips; instruction will provide sufficient background and training to pass the FAA Private Pilot Written Examination (Ground School Test), which will be administered at the completion of the course; each student will be offered the opportunity for an "on stick" orientation flight; for those wishing to continue pilot training, arrangements are being made for professional flight instruction (basic and instrument rating classes) at a special reduced rate for workshop participants. Tuition of $150, library fee of $10, and registration fee of $10 (total = $170) will be payable to Worcester State College. Laboratory fee of $10 is payable to the Massachusetts Association of Science Teachers. Although undergraduates are eligible to enroll for this course, priority will be given to full-time teachers. The course will be limited to 30 participants. ALL applications for participation in the course must contact Professor Robert Kelley, Worcester State College. DO NOT include payment with your application. Notification of acceptance will include details of payment of charges. Class will meet on Wednesdays, June 1-29 from 6:30 until 9:00 p.m. and on weekdays July 11-29 from 9:00 a.m. to noon. Note: Field trips in the latter session will entail several afternoon sessions, and participants should plan to attend 1 overnight airlift. 6 credits. T & Th; 7-10 p.m.; R. Kelley.

Py7-115 GENERAL PHYSICS. Mechanics of fluids and solids, properties of matter, and heat energy; three lectures and one two-hour laboratory per week. T & Th; 7-10 p.m.; Glassbrenner.

NURSING

Nu8-260 FAMILY-CENTERED NURSING PRACTICE. Designed for nurses in a variety of clinical settings to explore the impact of illness on families as well as individuals; general systems theory will form the framework for examining the structure and process of families, the environment in which the family functions, and those factors which contribute to disruption in family systems; nursing intervention aimed at minimizing the disruption of illness will be identified. M & W; 4-7 p.m.; Chander.

PHILOSOPHY

Ph7-100 LOGIC, HOW TO THINK AND REASON. Dialectical approach to the kinds of human knowledge and the nature of science and philosophy for the purpose of establishing an interdisciplinary understanding of curriculums; introduction to the basic forms of logical inquiry in order to formulate and evaluate logical inquiry in order to formulate and evaluate logical arguments as a means of philosophical investigation and a defense against contemporary rhetoric. M & W; 7-10 p.m.; Brophy.

Ph7-101 INTRODUCTION TO PHILOSOPHY. Nature, purpose, problems of philosophy; to challenge the student in the development of his own philosophical perspective. M & W; 4-7 p.m.; Staff.

Ph7-120 PHILOSOPHICAL PSYCHOLOGY. Explores the philosophical problems relevant to human nature and the person; problems of matter, spirit, mind, body, soul, life, death, immortality, knowledge, intellect, freewill and evolution will be considered, through the focus of both empirical and metaempirical methodologies; human nature in its physical and spiritual dimensions will be examined scientifically and philosophically. T & Th; 7-10 p.m.; Schaff.

Ph8-200 MORALITY AND HUMAN ACTS: CASE STUDIES. An inquiry into human situations of personal, social, political, legal and religious importance in order to discover what principles, standards, qualities, requirements, values, rights and obligations exist that can be known and applied to the process and judgments of human actions for oneself and towards another. T & Th; 4-7 p.m.; Brophy.

PHYSICAL EDUCATION

Pe7-150-1 TENNIS: BEGINNER & ADVANCED BEGINNER. Introduction to the game of tennis as a life time sport at the beginner, or advanced beginner level; the forehand and backhand ground strokes, serve and volley as well as the scoring system in tennis included. 1 credit. Enrollees must supply their own racquets. M & W; 5-6:30 p.m.; Nugent.

Pe7-150-2 TENNIS - INTERMEDIATE. Students should have mastered the basic strokes, serve and scoring through a beginners course or comparable experience; emphasis includes advanced strokes, strategy and tactics for singles and doubles play. 1 credit. Enrollees must supply their own racquets. T & Th; 5-6:30 p.m.; Nugent.

POLITICAL SCIENCE

Po8-300 THE MODERN PRESIDENCY. Examination of the evolution of the Presidency; special attention paid to those Presidents who have expanded the office. M & W; 7-10 p.m.; Twiss.

PSYCHOLOGY

Ps7-110 GENERAL PSYCHOLOGY I. Psychology as a behaviorial science; emphasis on history, scientific method, brain, nervous system, maturation, development, learning, motivation, and perception. M & W; 4-7 p.m.; Lonergan.

Ps7-171 PSYCHOLOGY OF ADOLESCENCE. Mental, emotional, social and physical changes of the adolescent; special emphasis on peer group and school influences on development and the contemporary problems of adolescence. Prerequisite: Ps7-110. T & Th; 7-10 p.m.; J. Jones.

Ps7-190 CHILD GROWTH AND DEVELOPMENT. Human organism from conception through adolescense; sequential patterns and characteristics of personality development vis-a-vis physical growth. M & W; 7-10 p.m.; Valenti.

Ps7-240 ABNORMAL PSYCHOLOGY. Etiology, dynamics and treatment of psychopathology and its relationship to normal personality; contemporary approaches as well as traditional categories of psychopathology. Prerequisite: General Psychology I and II. T & Th; 4-7 p.m.; Matheson.

Ps7-300 PSYCHOLOGICAL STATISTICS. Statistical principles and techniques as applied to psychological data; the selection of procedures appropriate to the problems, interpretation of outcomes, data tabulation and reduction, measurement of central tendency and variability, correlation, prediction, and association. M & W; 4-7 p.m.; Valenti.

Ps7-360 PSYCHOLOGY OF AGING. Applies the developmental approach as a systematic framework for viewing the adult years; several developmental theories considered; while the middle age and old age periods of life will receive major emphasis, a brief review of earlier stages of life will be included to aid in understanding the origins of later life developments. T & Th; 4-7 p.m.; Nash.

Ps8-300 HUMAN GROWTH AND DEVELOPMENT. Designed to allow investigation of human development by observing man's progression through life with respect to the processes of human growth; human development examined through the processes of Growth, Organization, Sexuality, Learning, Creativity, Stabilization, and Evolution; processes observed as they relate to and influence performance as nurses; after familiarization with functioning of processes, student will be expected to offer a class presentation describing his/her relationships with and the behaviors of patients and how these processes are influencing the student in his/her profession; by the end of the course, it is expected that each student will have a basic understanding of some of the traditional psychological principles of human development, have gained an understanding of the processes at work throughout the life cycle, have bridged the gap between theory and practice by being able to observe and apply the principles and processes in his/her profession. June 6-June 30; Mon.-Thurs.; 2:00-4:15 p.m. Daly.

SOCIOLOGY

So7-100 INTRODUCTION TO SOCIOLOGY. Formal study of the nature of group behavior and social interaction through the analysis of the structure and values of human groups. T & Th; 4-7 p.m.; Brooker.

So7-200 CONTEMPORARY SOCIAL PROBLEMS. Critical analysis of the social, political, urban and industrial changes in American society, introducing specific problems of contemporary American life. Prerequisite: Introductory Sociology. T & Th; 7-10 p.m.; Brooker.

So7-203 THE SOCIOLOGY OF MENTAL HEALTH. Social factors and social processes that contribute to mental health and mental disorders; social definitions of mental disorders as forms of social deviance; social facets in the treatment and care of disordered persons; social aspects of mental health and the prevention of mental disorders. M & W; 4-7 p.m.; Khleif.

So7-207 SOCIOLOGY OF THE FAMILY. Comparative cross-cultural approach to the study of family systems, with an emphasis upon the effects of social change. Prerequisite: So7-100. M & W; 4-7 p.m.; Zelman.

So8-320 SOCIAL THEORY. Thorough review and examination of the theoretical models, social constructs, and analytic tools which are employed by social theorists of both the classical and contemporary schools; particular emphasis placed on structural sociology and the on-going nature of the development of social theories. M & W; 4-7 p.m.; Zeady.

So8-410 SOCIOLOGY OF DEATH. Theories and studies of grief and bereavement; problems of terminal patients; death denial and styles of mourning; the sociology of the mortuary -- attitudes toward the funeral, the funeral director and funeral arrangements; and comparative studies toward death. M & W; 7-10 p.m.; Khleif.

SPANISH

Sp7-101 FUNDAMENTALS OF SPANISH I. Basics of Spanish with emphasis on correct oral expression and comprehension of the spoken language and on the development of a "stimulus response"; attention given to technique of reading, writing and structure; extensive use of film-strips, tapes by native speakers, and modern dialogs oriented toward every day speech situations; after about two months, a paperback reader with practice exercises is introduced. M & W; 7-10 p.m.; Kittredge.

THEATER ARTS

(See Media)

URBAN STUDIES

Ur7-213 HUMAN IDENTITY AND THE URBAN ENVIRONMENT. A number of selected readings that portray a broad spectrum of human needs and aspirations will be used to provide the student with an understanding of the varied perceptions of individuals residing in urban areas; course will explore the capacity of urban residents to adapt to new patterns of social interaction and to a change-oriented environment. Prerequisite: U7-101. M & W; 4-7 p.m.; Langlois.

Ur8-216 THE AMERICAN CITY. Study of the evolution and condition of today's American city developed from various social science approaches; contemporary city will be seen from a background of historical, economic, geographical, cultural, and social-psychological theory. T & Th; 4-7 p.m.; Powers.

SUMMER SESSION

SIX–WEEK COURSES

JULY 11 – AUGUST 19

Days, times and faculty appear below each course description.

ART

Ar8-300 VISION AND SOUND. Study in combining sound with sequential visual structure. Requirements: Students must have a record player or cassette tape recorder. M-Th; 9:55-11:30 a.m.; Murphy.

Ar8-350 THE WORCESTER ART MUSEUM. Lecture and field course covering the collections and exhibitions of the Worcester Art Museum; class will spend a considerable amount of time at the Museum; at other times, lectures and slide presentations will be given. M-Th; 11:35 a.m.-1:10 p.m.; TBA.

AUDIO VISUAL - MEDIA

(See Media)

BIOLOGY

Bi7-101 SOCIAL BIOLOGY. Introductory course for non-major, stresses "humanistic" approach to the major biological problem of the day: the social implications of medicine, behavior, genetics, population, environment, and evolution examined; emphasis on the role of biology within social framework. Three lectures per week. T & Th; 7-10 p.m.; Thurston.

Bi7-151 GENERAL BOTANY. Prerequisites: none recommended for biology majors. Plant kingdom; taxonomy, natural history, anatomy, and evolutionary relationships identification, classification, and dissection from macro-and microscopic viewpoints; three lectures and a three hour laboratory per week. 4 credits. M-Th; 8:15-10:20 a.m.; Thurston.

Bi7-161 HUMAN ANATOMY AND PHYSIOLOGY I. Integration, organization and dynamics of normal human body systems; physiological experiments and dissection of organs and specimens. Prerequisites: General Biology II, General Zoology or departmental permission. 4 credits. M-Th; 8:15-10:20 a.m.; Eager.

Bi7-162 HUMAN ANATOMY AND PHYSIOLOGY II. Concentrates on blood, digestive, endocrine excretory (water balance), respiratory and reproductive systems; three lectures and a two-hour laboratory per week. Prerequisites: General Biology II, General Zoology, or departmental permission. 4 credits. M & W; 6-10 p.m.; Russell.

Bi7-204 INTRODUCTION TO CELL BIOLOGY. Ultrastructure and cytochemistry of cell organelles are related to their functions; discussion of the evolution of cellular molecular machinery, cell bio-energetics, and nuclear phenomena; demonstrations supplement the lectures; three lectures per week. M-Th; 9:55-11:30 a.m.; Chauvin.

Bi8-135 INTERPRETATION OF SCIENTIFIC AND MEDICAL CLAIMS. Techniques used to discriminate between proven and unproven claims concerning new products, diets, treatments and discoveries which are made in today's news media; identifying acceptable sources of information, application of simple logic and scientific proof; introduction made to the reading of key scientific and medical indexes and journals and to the recognition of adequate or inadequate evidence for making a clear conclusion; while specific claims will be examined in depth, the framework will be presented which will allow one to examine any future claims. M-Th; 9:55-11:30 a.m.; Kreider.

Bi8-400 MICROBIOLOGY. Introductory course will study the microorganisms in general and the bacteria specifically; stress on morphological, physiological, and epidemiological aspects of the microorganisms; units on immunity and infection included; laboratory will focus on the understanding of fundamental techniques in morphology and physiology of microorganisms; applied laboratory exercises. 4 credits. M-Th; 9:55 a.m.-12:00 p.m.; W. Masterson.

Bi9-235 NEUROENDOCRINOLOGY. Emphasis on the hypotalamo-hypophysial system in mammals; influence exerted by the central nervous system discussed. Prerequisite: Endocrinology. M-Th; 11:35 a.m.-1:10 p.m.; Chauvin.

CHEMISTRY

Ch7-111-1 INTRODUCTION TO GENERAL, ORGANIC AND BIOCHEMISTRY II. Organic portion of course will emphasize the study of group properties as determined by modern electronic theory and molecular structure; topics in biochemistry include nucleic acids biochemical reactions, enzymes, and other basic principles; representative laboratory experiments performed; previous knowledge of general chemistry desirable but not essential. 3 credits. M & W; 7-10 p.m.; Merkin.

Ch7-III-2 LABORATORY FOR INTRODUCTION TO GENERAL, ORGANIC AND BIOCHEMISTRY II. 1 credit. T & Th; 7-10 p.m.; Merkin.

Ch8-130 CHEMICAL PERSPECTIVES IN CANCER. Beginning with a discussion of the historical evidence that chemicals can act as causitive agents in the production of human cancers, this course goes on to a study of modern theories of chemical carcinogens, interaction of carcinogens with proteins and nucleic acids, and theories of cell regulation; recent advances in chemotherapy also discussed. Prerequisites: 1 year of General Chemistry; 1 year of General Biology; and 1 year of Organic Chemistry is recommended. M & W; 7-10 p.m.; R. Harris.

Ch8-440 LABORATORY TECHNIQUES IN MODERN ANALYTICAL CHEMISTRY. Intended as an introduction to modern instrumental techniques of chemical analysis for students who have a minimal background in chemistry; methods to be studied are atomic absorption spectroscopy, UV spectroscopy, polarography, potentiometry, and gas chromatography; scheduled experiments include calcium in urine, lead in tap water, dextromethorphan in cough syrup, antibiotics via UV. Prerequisite: 1 year of General Chemistry. T & Th; 7-10 p.m.; R. Harris.

COMMUNICATION DISORDERS

Cd8-100 INTRODUCTION TO SIGN LANGUAGE. Students will be exposed to various sign language systems and finger spelling; concentration will be given to basic American Sign Language vocabulary used in English work order. M & W; 7-10 p.m.; Nelson.

COMPUTER SCIENCE

Cs7-150 INTRODUCTION TO COMPUTER SCIENCE. Basic computer operation, capabilities, application in such fields as education, and effect on modern society; familiarization with terminology and equipment; programming using the language BASIC: non-technical approach. M & W; 7-10 p.m.; Casavant.

COUNSELOR EDUCATION

Ce9-300 INDIVIDUAL INTELLIGENCE APPRAISAL (WAIS-WISC). Includes study of two major Wechsleer tests, namely Wechsler Adult Intelligence Scale (WAIS) and the Wechsler Intelligence Scale for Children (WISC); students will have opportunity for practical work in administration and interpretation of both these scales; course designed for classroom teachers, special education teachers, school psychologists, and guidance personnel; certificate issued to those who complete the testing requirements under supervision. Prerequisite: introductory course in Measurement. M-Th; 9:55-11:30 a.m.; Taylor.

Ce9-400 PSYCHOLOGY OF VOCATIONAL ADJUSTMENT. Primary purpose of course is to study current theoretical

modes of thought in Vocational Psychology and to compare them with one another in an attempt to create a synthesis of current research and theory that will be useful to the practicing counselor. M & W; 7-10 p.m.; Staff.

Ce9-500 PUPIL PERSONNEL SERVICE. Required course for personnel workers in the public schools; introduction to occupational, educational, and personnel career studies for appraisal and evaluation; roles, and responsibilities of various pupil personnel; use and function of school and out-of-school agencies; clinical procedures; a full review of the most important aspects of setting and appraising personnel programs on all levels will be stressed and studied. Prerequisite: Principles of Guidance. M-Th; 11:35 a.m.-1:10 p.m.; Taylor.

EDUCATION

Adult, Community, Urban Education

Ed8-160 READING NEEDS OF THE ADULT LEARNER. Diagnosis and correction of reading difficulties of the adult learner. Prerequisite for Teaching the Illiterate Adult. M & W; 7-10 p.m.; Fischer.

Ed9-255 DIRECTED STUDY IN ADULT EDUCATION. Intended for graduate students who have a background in the field and who have the opportunity to critically analyze a special problem or personal interest in Adult Education; requirements include a log of experiences accumulated during the investigation or a research paper related to the problem; students must obtain permission from the director of Adult Education in order to register. 1-6 credits. M & W; 7-10 p.m.; Fox.

Ed9-291 INTERNSHIP IN PROGRAM DEVELOPMENT IN COMMUNITY EDUCATION. Designed to develop practical experience in the field in a leadership position; placement under supervision in a community school or other approved agency. Consent of the instructor is necessary for registration. M-Th; 8:15-9:50 a.m.; Staff.

Ed9-295 INDEPENDENT STUDY IN COMMUNITY EDUCATION. Devised for graduate students with a background in Community Education; student will work closely with the instructor in the compilation and development of information concerning a particular problem that is current in the field; consent of the instructor is necessary for registration. M-Th; 8:15-9:50 a.m.; W. O'Neil.

Early Childhood Education

Ed9-385 INDEPENDENT RESEARCH IN EARLY CHILDHOOD EDUCATION. Course for students wishing to pursue independent study in a specialized area of Early Childhood Education; greater understanding and appreciation of early childhood should result; faculty members from other disciplines may also be called in to counsel the student in resources and approaches. TBA; TBA; Polito.

Elementary & Secondary Education

Ed7-245 EDUCATIONAL PSYCHOLOGY. Learning and developmental processes, motivation, retention, relationships of intelligence and achievement, personality, emotional aspects of learning. Prerequisite: General Psychology I. T & Th; 7-10 p.m.; Burns.

Ed7-280 HISTORY AND PHILOSOPHY OF EDUCATION. Contemporary problems of education in relation to selected ancient, medieval, modern philosophers of education. M-Th; 9:55-11:30 a.m.; TBA.

Mu/Ed8-400 MUSIC IN THE ELEMENTARY SCHOOL. (See Music).

Ed8-775 TEACHING SECONDARY SCHOOL MATHEMATICS. Current secondary math curriculum, emphasizing effective teaching practices; including discussion of School Mathematics Study Group (SMSG), Commission of Mathematics of the College Entrance Examination Board, Secondary School Committee of NCTM and others; particular consideration given to discovery approaches, analytic, genetic and laboratory approaches. M-Th; 9:55-11:30 a.m.; Zax.

Ed8-927 EDUCATIONAL MEASUREMENT AND EVALUATION. Considers the nature of measurement, its purpose and value in the learning situation, the types of measuring techniques to be employed; attention given to the development of certain statistical concepts facility in the selection and use measuring instruments, and in the interpretation of data secured. M-Th; 8:15-9:50 a.m.; TBA.

Ed9-410 THEORY AND RESEARCH IN THE ELEMENTARY SCHOOL CURRICULUM. Purpose of the course is to develop the graduate student's ability to recognize, select, and pursue independent action research in one or more areas of the elementary school curriculum; areas will be selected in conjunction with the graduate faculty members in Elementary Education who are qualified in the area of the student's choice; student is expected to present frequent progress reports to the class; experience in types and techniques of research, developmental study, and evaluation will be an integral part of the course; completion of a substantial research project required of each class member. Prerequisite: Research in Education. M-Th; 9:55-11:30 a.m.; Johnson.

Leadership & Educational Administration

Ed8-100 SCHOOL BUSINESS MANAGEMENT AND ADMINISTRATION. Study of the interaction between school management services and the total educational organization and its environment; topics include educational budgeting and financial planning, state and federal financial reimbursement programs, miscellaneous grant programs, purchasing and supply management, operation and maintenance of plant, personnel management, school transportation administration and food services management; area of study will be presented in accordance with generally accepted school business management practices; emphasis will be made on transferring theoretical concepts into viable "real world" administration techniques. T & Th; 7-10 p.m.; Ivascyn.

Ed9-112 LAW FOR THE ADMINISTRATOR. In-depth investigation of specific school laws and how they relate to the administration of a modern school system. Prerequisite: Ed9-110. M & W; 7-10 p.m.; Shumway.

Ed9-127 ORGANIZATION AND ADMINISTRATION OF THE ELEMENTARY SCHOOL. The many facets of elementary school administration and organization; the role of the principal as an administrator in the larger setting of present day education stressed; specifically the course will deal with the principal's role in organizing for teaching and learning, administering pupil personnel and special services and integrating school and community life. M & W; 4-7 p.m.; Towers.

Ed9-162 ADMINISTRATION OF PROGRAMS FOR CHILDREN WITH SPECIAL NEEDS. Because of recent legislation in Massachusetts, school systems have become deeply involved with programs for children with special needs. This course will examine the implications of the legislation for administrators who are responsible for implementing these programs; it is designed to apply to both elementary and secondary education administration; alternative methods of implementation of programs, staffing and funding explored. T & Th; 7-10 p.m.; TBA.

Ed9-190 SPECIAL PROBLEMS IN SCHOOL ADMINISTRATION. Practicum experience designed around a special problem in administration of a school system. T & Th; 4-7 p.m.; F. Masterson.

Reading & Language Arts

Ed8-525 CHILDREN'S LITERATURE AND STORY TELLING. Designed to broaden teacher's acquaintance with literature suitable for elementary school children and to present effective procedures for fostering a love of good reading; topics covered include the classics, current fiction and non-fiction, the Newbury and Caldecott Awards, effective techniques of story-telling, interpretation of verse for children, illustrators of children's books, and sources of display materials. M-Th; 11:35 a.m.-1:10 p.m.; Staff.

Ed9-510 READING IN THE SECONDARY SCHOOL. Consideration given to aspects of development, corrective and remedial reading at the high school level; word recognition skills explored, including general and technical vocabulary development, use of context, phonetics and structural analysis skills and S Q 3 R' general aim is to provide information to improve reading in all classes. M & W; 7-10 p.m.; Staff.

Ed9-525 DIAGNOSIS AND CORRECTION OF READING DIFFICULTIES. Studies current diagnostic techniques for the analysis of reading deficits; prescribes appropriate instructional strategies and materials; diagnosis of one pupil's reading problems presented in a formal case report. Prerequisites: The Teaching of Reading or Current Trends in the Teaching of Reading. M-Th; 9:55-11:30 a.m.; Gormon.

Ed9-535 READING IN THE CONTENT AREAS. Study skills involved in reading in various subject matter areas; materials and teaching strategies critically evaluated. M & W; 4-7 p.m.; Staff.

Ed9-590 LABORATORY PRACTICUM IN REMEDIAL AND CORRECTIVE READING. Study made of the symptoms and causes of reading disabilities and the procedures which may be used to aid their correction; each graduate student will be required to diagnose and analyze a pupil's reading difficulties through formal and informal procedures; remedial program will be initiated and carried out for the pupils in a clinical setting; cases will be from grades three through six; case history of the remedial pupil will be required, including initial and final testing results along with the remedial techniques used; double period time block will consist of a seminar on the diagnostic and corrective procedures, followed by a work period with the pupil under supervision of the course instructor. Course Prerequisites: Three years teaching experience in the teaching of reading at the elementary level; one basic course in the teaching of reading at the elementary school level; Diagnosis and Correction. The course will carry six (6) semester hours graduate credit. Class size will be limited. M-F; 8:45-12:00 p.m.; Moosey.

Special Needs

Ed7-260 INTRODUCTION TO CHILDREN WITH SPECIAL NEEDS. Course in Learning Disabilities designed to orient prospective teachers in the many-faceted problems of children with special needs; recent trends and teaching strategies will be discussed; consideration given to discrepancies in each area of deviation. Prerequisite: Child Growth and Development. M-Th; 9:55-11:30 a.m.; TBA.

Ed7-372 ASSESSMENT AND REMEDIATION OF SPECIFIC LEARNING NEEDS. Considers the psychological and educational deficiencies of children with special needs, through educational diagnosis; students will administer and interpret formal and informal tests to synthesize their results with available clinical information to build a clear behavioral picture of learning functions in the child with special needs. T & Th; 4-7 p.m.; Schacter.

Ed8-600 OVERVIEW OF 766. General consideration of Chapter 766 and its implications for the public and private school; the design of the law's implementation; the administrative procedures; the implications of 766's impact on teachers, parents, and students in the mid-1970's. M-Th; 8:15-9:50 a.m.; Underwood.

Ed9-610 ANALYSIS AND INTERPRETATION OF CHILDREN'S BEHAVIOR AND LEARNING ENVIRONMENT. (Formerly known as Assessment of Specific Learning Needs). Overview of the evaluation techniques in use for group and individual assessment of perceptual, motor, and conceptual functioning; general capabilities and academic performance of the child with special needs; examination of test data emanating from supportive personnel will be analyzed and interpreted in light of children's needs. The class size is limited. Prerequisite: Ed9-600. M & W; 4-7 p.m.; Weiner.

Ed9-630 PROGRAM DEVELOPMENT AND EVALUATION FOR THE GENERIC SPECIAL TEACHER. Examination of current and proposed organizational plans for the delivery of services; application of research findings to curriculum effectiveness; program evaluation in terms of meeting the individual child's needs within the total school structure. Prerequisites: Ed9-600, Ed9-610, Ed9-620. M-Th; 11:35 a.m.-1:10 p.m.; Loso.

Core Education

Ed9-960-1 RESEARCH IN EDUCATION. Use of appropriate research
Ed9-960-2 methods in selection and evaluation of data and assisting the graduate student in the preparation and understanding of a research report; major areas of emphasis include the nature of and criteria for evaluating research, library, techniques and format of report, and necessary statistical concepts and methods of research; student is expected to demonstrate his knowledge of these in a term research study. Prerequisite: A bachelor's degree from an accredited college. Ed9-960-1, M-Th; 9:55-11:30 a.m.; TBA. Ed9-960-2, M & W; 4-7 p.m.; Griffiths.

Ed9-970-1 ADVANCED PHILOSOPHICAL FOUNDATIONS OF
Ed9-970-2 EDUCATION. Oriented towards the total self of the student in terms of rationalistic pragmatic and existential-humanistic philosophies of education; emphasis on the deepening, raising, and broadening of one's consciousness about the philosophical phenomena of education in the contexts of teaching and learning, knowledge and experience, and school and society; students expected to do an in-depth philosophical study of education, drawing upon the sources of knowledge and experience for self-development. Prerequisite: Ed7-280 - History and Philosophy of Education. May be waived at discretion of instructor or the instructor and Dean of Graduate Education if student has completed an equivalent course. Ed9-970-1, M-Th; 8:15-9:50 a.m.; TBA. Ed9-970-2, T & Th; 4-7 p.m.; TBA.

Ed9-980-1 ADVANCED PSYCHOLOGICAL FOUNDATIONS OF
Ed9-980-2 EDUCATION. Studies and evaluates the role of those environmental, mental and extra-mental forces which motivate all learners to utilize fully and effectively their capacities, aptitudes and attitudes. A systematic analysis of the major schools of psychology with special attention focused on the contemporary schools. Attention given to the teachers' role in the learning process and special emphasis on the application of these principles to specific classroom situations. Prerequisites: Educational Psychology or permission of the instructor. Ed9-980-1, T & Th; 7-10 p.m.; TBA. Ed9-980-2, M-Th; 11:35 a.m.-1:10 p.m.; TBA.

ENGLISH

En7-111 SURVEY OF AMERICAN LITERATURE II. Continuation of Survey of English Literature I; American Literature after the Civil War; naturalism and realism. T & Th; 4-7 p.m.; TBA.

En7-121 SURVEY OF ENGLISH LITERATURE II. Development of English literature from 1798 to the present; required of all English majors. M-Th; 9:55-11:30 a.m.; Edmonds.

En7-150 THE SHORT STORY. Short story form from its origins in the medieval tale to modern short stories which are psychological probings of character; attention to changes in structure and to Poe's theory of the short story; selections from Conrad, Mansfield, Joyce, and others. M & W; 7-10 p.m.; Crowley.

En7-158 SCIENCE FICTION. Nature and function of nineteenth and twentieth century science fiction literature - H. G. Wells, Jules Verne, Isaac Asimov, Ray Bradbury, and others. T & Th; 7-10 p.m.; R. Sullivan.

En8-122 TECHNIQUES OF JOURNALISM. Provides practical instruction in the preparation of various types of news writing, development of a distinctively journalistic style, reporting techniques, interviewing methods, editing news stories, establishing and running a local newspaper. T & Th; 7-10 p.m.; TBA.

En8-160 MONSTERS IN MODERN LITERATURE. Five works of fiction - Frankenstein, Dracula, The Portrait of Dorian Gray, and The Exorcist will be explored in the context of a question - Is there a significant correlation between the ideals (or norms) of a society and the "monsters" that its artists create or return to? M-Th; 11:35 a.m.-1:10 p.m.; Weiselco.

En8-390 SPECIAL PROBLEMS IN LITERATURE: SELECTED WRITINGS OF EDGAR ALLAN POE. Examination of the poems, stories, and literary criticism of Edgar Allan Poe. M & W; 7-10 p.m.; R. Sullivan.

En8-740 THE ROMANTIC MOVEMENT: INFLUENCE ON THE TWENTIETH CENTURY. Examination of major Romantic poets (Wordsworth, Coleridge, Shelley, Byron and Keats) and their twentieth century counterparts; purpose is to examine the different forms and ideas of the concept of Romanticism, to assess Romantic notions of the functions of poetry, and to estimate the social and aesthetic implications of Romantic doctrines. M-Th; 8:15-9:50 a.m.; Edmonds.

En8-760 THE WORLDS OF CHARLES DICKENS. Major aspects of the life and art of Dickens will be examined in a variety of contexts; Dickens as (1) humorist and satirist, (2) symbolist, (3) novelist, (4) social and political critic, (5) Victorian feminist; course will draw on a small body of excerpts from letters, stories, and novels but focuses on four novels - Pickwick, Oliver Twist, David Copperfield, and Great Expectations. M-Th; 9:55-11:30 a.m.; Weiscello.

GEOGRAPHY

Ge7-102 PRINCIPLES OF CULTURAL GEOGRAPHY. Considers man-land relationships, settlement patterns, problems related to urbanization, pollution, conservation and patterns of change. M-Th; 9:55-11:30 a.m.; Hunt.

Ge7-430 URBAN GEOGRAPHY. Geographic aspects of origin, growth and development of cities and urbanized areas; factors influencing the location of cities and central places; internal structure, functions, problems and urban planning. M-Th; 8:15-9:50 a.m.; Hunt.

HISTORY

Hi7-102 HISTORY OF WESTERN CIVILIZATION II. Survey of the major political, economic, diplomatic and intellectual developments of the major European nations from 1648 to World War II. M-Th; 11:35 a.m.-1:10 p.m.; TBA.

Hi7-112 UNITED HISTORY II. Survey of American history from the Reconstruction period to the present. M-Th; 9:55-11:30 a.m.; Kane.

HI8-150 U.S. HISTORY SINCE 1945. Domestic and foreign policy of the Truman, Eisenhower, Kennedy, Johnson, Nixon, and Ford administrations, with concentration on the forces that made these administrations significant in American history; political, social, and economic forces analyzed. M-Th; 8:15-9:50 a.m.; Spector.

Hi8-326 UNITED STATES FOREIGN POLICY IN TRANSITION: 1861-1920. Study of the history of U. S. foreign policy from the Proclamation of the Union blockade through the United States' emergence as a world power and down to the apparent return to a more traditional American foreign policy as signified by the presidential election of 1920. T & Th; 7-10 p.m.; Kane.

Hi8-615 THE RISE OF THE CONTEMPORARY MIDDLE EAST. Describes and analyzes the forces which have shaped the course of modern Middle East history ever since the closing decades of the 19th century; important topics include the penetration of the Ottoman Empire by the Western Powers, the balcanization of the Middle East in the first World War, the struggle for Palestine and the resultant Arab-Israeli conflict. T & Th; 4-7 p.m.; Seliba.

Hi9-450 EUROPE SINCE 1939. Details of Hitler's Europe and origins of post World War II problems; confrontation of the superpowers; liquidation of the colonial empires; transformation and reconstruction of western and central Europe. M-Th; 11:35 a.m.-1:10 p.m.; Yuan.

Hi9-460 EUROPEAN INTELLECTUAL HISTORY FROM THE ENLIGHTENMENT TO THE PRESENT. Major ideas of the era; Utilitarian, Nationalist and Socialist schools; Fascism, Communism and Liberalism. M & W; 7-10 p.m.; Hedman.

LIBRARY SCIENCE/MEDIA

(See Media)

MANAGEMENT

Mg7-110 INTRODUCTORY ACCOUNTING I. Basic structure and fundamental concepts and principles of accounting; includes the nature and classification of accounts, development of accounting records including special purpose journals, controlling accounts and subsidiary ledgers, and other systems and controls; establishment of accounting cycle and preparation of financial statements also covered; consideration of such areas as sales purchases, cash receivables, payables, inventories, deferrals, accurals, and plant assets included. M & W; 7-10 p.m.; Goodrich.

Mg7-200 FUNDAMENTALS OF MANAGEMENT & ORGANIZATIONAL BEHAVIOR. Study of managerial practices and behavior in organizational settings with emphasis on the administrative functions of planning, organizing, staffing, directing and controlling; coverage of motivation, communication, decision-making, and other significant managerial concepts; student will be exposed to the case study method in preparation for later in depth application through individual, group, and class efforts. M-Th; 9:55-11:30 a.m.; Weaver.

Mg7-405 MARKETING I. Overview of the full range of activities involved in marketing; attention given to the appraisal and diagnosis, organization and planning, and control of all elements of marketing; both consumer and industrial markets and enterprises involved in producing and distributing goods and services investigated; objective of course is to develop an understanding of marketing principles, problems and processes. Prerequisites: Problem-Solving in Organizations, Organizational Dynamics (both may be taken concurrently). M-Th; 11:35 a.m. 1:10 p.m.; Weaver.

Mg8-425 INVESTMENTS AND THE STOCK MARKET. Investment setting; how the security markets work; the investment process; sources of investment information; how to evaluate investments; decision-making in investments; common and preferred stock investment examined as well as bond investment. T & Th; 7-10 p.m.; Leasca.

MATHEMATICS

Ma7-100 BASIC MATHEMATICS. Provides the student who has little or no background in mathematics with the necessary arithmetic and algebra for the understanding of today's mathematics. M-Th; 9:55-11:30 a.m.; Campo.

Ma7-160 SURVEY OF MATHEMATICS I. Topics to convey an appreciation of mathematics such as logic, algebra, geometry, number theory, probability and statistics, and others. M-Th; 11:35 a.m.-1:10 p.m.; Campo.

Ma7-170 ANALYTICAL GEOMETRY. Essential classical topics of analytical geometry; graphs and their uses, and applications to empirical curve fitting. T & Th; 7-10 p.m.; Kotzen.

Ma7-220 MODERN MATHEMATICS. Relations, functions, binary operations, groups, rings, fields and the structure of number systems. M & W; 7-10 p.m.; Hill.

Ma7-311 CALCULUS IV. Partial derivatives, multiple integrals, infinite series and complex numbers. Prerequisite: Calculus III. T & Th; 7-10 p.m.; R. J. Perry.

Ma8-301 LINEAR ALGEBRA. Fundamental concepts of systems of linear equations, matrices, vector spaces, linear transformations, determinants, inner products, eigen-values and eigenvectors. Prerequisite: Modern Mathematics or equivalent. M & W; 4-7 p.m.; TBA.

MEDIA

Me8-125 SUMMER THEATRE AT WORCESTER STATE. Comprehensive offering which combines instruction and participation in all areas of theatrical production; four-week rehearsal and preparation period will culminate in two weeks of repertory performances of the two plays selected for staging; students will be actively involved with conception and execution of all artistic and practical functions. See the brochure available at the Office of Graduate Education and Special Programs or the Media Department office in the Learning Resources Center for additional details. M-Th; 9:55-11:30 a.m.; Seiffer.

Me8-360 TELEVISION PRODUCTION I. Provides the student with background and practice in the techniques of producing color television under studio conditions; attention paid to audio aspects, lighting, staging, directing, and equipment operation. Not open to students who have completed Producing & Directing the Television Program. Limited to 16 students. T & Th; 7-10 p.m.; Joyce.

Me9-100 COMMUNICATION MEDIA. Intended to provide an integrating framework to assist the student in developing a meaningful understanding of the relationships between the various concepts and divisions in the field; includes reading and summarizing reports from the research literature. Limited to 24 students. M-Th; 8:15-9:50 a.m.; Joyce.

MUSIC

Mu8-275 SYMPHONIC MUSIC. Study of symphonic masterpieces from the 18th and 19th centuries; emphasis given to major composers of the symphony beginning with Haydn. T & Th; 4-7 p.m.; Sahagian.

Mu/Ed8-400 MUSIC IN THE ELEMENTARY SCHOOL. Designed for classroom teachers; course explores the role of music in contemporary education and the musical concepts, skills, teaching methods and materials appropriate in the elementary school music program. M & W; 7-10 p.m.; Kaminsky.

NATURAL SCIENCE/PHYSICS

Ns7-101 PHYSICAL SCIENCE I. Survey of the physical sciences with particular emphasis on physics and chemistry, particularly the evolution of concepts and theories; scientific methods and attitudes considered; topics include physical laws, measurement, laws of motion, gravitation, energy, conservation laws, kinetic molecular theory and wave motion. M-Th; 8:15-9:50 a.m.; Belanger.

PHILOSOPHY

Ph7-100 LOGIC HOW TO THINK AND REASON. Dialectical approach to the kinds of human knowledge and the nature of science and philosophy for the purpose of establishing an inter-disciplinary understanding of curriculums; introduction to the basic forms of logical inquiry in order to formulate and evaluate logical inquiry in order to formulate and evaluate logical arguments as a means of philosophical investigation and a defense against contemporary rhetoric. M-Th; 8:15-9:50 a.m.; TBA.

Ph7-220 EXISTENTIALISM: THE HISTORIC ANTECEDENTS AND CONTEMPORARY SIGNIFICANCE. Study of some recurring existential themes in the writings of Kierkegaard, Nietzsche, Jaspers, Heidegger, Marcel and Sartre and the impact of their ideas on contemporary psychology, theology, religion, education and literature. T & Th; 4-7 p.m.; TBA.

PSYCHOLOGY

Ps7-110 GENERAL PSYCHOLOGY I. Psychology as a behaviorial science; emphasis on history, scientific method, brain, nervous system, maturation, development, learning, motivation, and perception. T & Th; 7-10 p.m.; TBA.

Ps7-190 CHILD GROWTH AND DEVELOPMENT. Human organism from conception through adolescense; sequential patterns and characteristics of personality development vis-a-vis physical growth. M & W; 7-10 p.m.; TBA.

Ps9-785 PSYCHOLOGY OF SUBNORMAL AND UNADJUSTED CHILDREN. Study of the psychological and educational factors involved in classification, diagnosis and counseling of the retarded; various approaches to the treatment of subnormal and unadjusted children in relation to the family, to the school, and to the community; latest research and studies on the psychological bases of suitable curriculum for mentally retarded children will be reviewed and evaluated; clinical visitation part of the course. This course may be used toward the Massachusetts Certification of a Teacher of Special Education and Public School Psychologist. Prerequisites: One year of General Psychology, Abnormal Psychology. M & W; 4-7 p.m.; Loughlin.

SOCIOLOGY

So7-100 INTRODUCTION TO SOCIOLOGY. Formal study of the nature of group behavior and social interaction through the analysis of the structure and values of human groups. T & Th; 7-10 p.m.; Pizziferri.

So7-209 COLLECTIVE BEHAVIOR. Study of the interactive processes by which new norms and forms of social organization emerge in the crowd, the public, and the social movement; attention given to those forms of collective behavior which are most productive of social change. Prerequisite: So7-100. M & W; 7-10 p.m.; Pizziferri.

So7-301 SOCIAL PSYCHOLOGY. Dynamics of small group involvement and its effect on the individual's psychology as shaped by environmental influences Prerequisite: So7-100 and one other content course. T & Th; 7-10 p.m; Zelman.

So8-430 SEMINAR IN SOCIOLOGY: CRISIS IN THE AMERICAN FAMILY: VIOLENCE - THE BATTERED CHILD AND THE BATTERED WIFE. Seminar will consider two vital problems of American family life - the battered child and the battered wife with an emphasis on discussion; recent studies have indicated that the problem of violence within the family is rapidly becoming the most serious issue in the sociological study of the family; contemporary writings,

both scholarly and popular will be used to focus the attention of the participants on these matters. M-Th; 8:15-9:50 a.m.; Goss.

So8-435 SEMINAR IN SOCIOLOGY: THE SEXUAL REVOLUTION. Seminar will closely examine the changing sexual norms of American society through an intensive examination of changes in the legal definitions of obscenity, pornography, consenting adults, cohabitation, etc.; because of the nature of the material to be discussed, seminar will be open only to mature students. Prerequisite: Permission of instructor required. M-Th; 9:55-11:30 a.m.; Goss.

SPANISH

Sp7-102 FUNDAMENTAL SPANISH II. Continuation of Fundamental Spanish I; objective of course is to continue working to establish a language proficiency at a level which makes possible daily communication; based on the famous St. Cloud method which stresses - 1) the use of basic Spanish vocabulary and grammar beginning with the first lesson; 2) the progressive acquisition of vocabulary and structures based on "centers of interest" as presented in the audio-visual materials used in the method; course has proven beneficial to persons (such as teachers, nurses, doctors, lawyers, social workers and good neighbors) who wish to establish better communication with and understanding of the Spanish-speaking people with whom they come in contact in their professions or daily life; undergraduate students interested in fulfilling a distribution requirement or who find it impossible to fit the study of a language into their schedule, may also find the course of value. T & Th; 7-10 p.m.; Hartwig.

THEATRE ARTS

(See Media)

SESSION III

THREE–WEEK COURSES

JULY 11 – JULY 29

Days, times and faculty appear below each course description.

AUDIO VISUAL MEDIA

(See Media)

BIOLOGY

Bi7-111 GENERAL BIOLOGY I. An in-depth study of cellular and living systems with laboratory concentration on selected chemical and physical characteristics of life. Prerequisites: none recommended for the non-major. M-Th; 7-10 p.m.; Boger.

COMMUNICATION DISORDERS

Cd7-105 PHONETICS. Study of the production of speech sounds in the English language, study and practice in the use of the general American phonetic symbols, practice in phonetic and allophonic transcription, and introduction to the mechanics of voice production. M-Th; 4-7 p.m.; McLoughlin.

Cd7-305 RHYTHM PROBLEMS AND ALLIED DISORDERS OF SPEECH. Introduction to major theories of stuttering and associated problems, e.g. cluttering basic therapeutic procedures for children and adults. Prerequisites: Speech Pathology, Phonetics and Anatomy & Physiology of the Speech and Hearing Mechanisms. M-Th; 9 a.m.-12 p.m.; McLoughlin.

Cd7-315 LANGUAGE THERAPY FOR THE DEAF AND HARD OF HEARING. Receptive and expressive language acquisition of the auditorily impaired; emphasis on learning disabilities and social disabilities related to hearing impairments; consideration of techniques for appraisal and identification of symptoms and factors associated with language disfunctions. M-Th; 1-4 p.m.; Guerin.

COUNSELOR EDUCATION

Ce8-500 COUNSELING THE PHYSICALLY HANDICAPPED. Course will present some of the basic disadvantages handicapped people face in our society today; education for the handicapped; specialized housing needs; job availability; how the state assists the handicapped. M-Th; 9 a.m.-12 p.m.; Cashman.

Ce9-251 GROUP COUNSELING II. Follow-up course to Group Counseling I which focuses on selected readings and provides an opportunity for students to develop their skills as facilitators or leaders by demonstration, practice and group feedback. Prerequisite: Group Counseling I or permission of instructor. M-Th; 7-10 p.m.; Buxton.

ADULT EDUCATION

Ed9-215 TEACHING THE ILLITERATE ADULT. Understanding of the scope of adult illiteracy and the methods and procedures for teaching adult illiterates to read; concern given to developing sensitivity to the adult learner. M-Th; 7-10 p.m.; Fischer.

EARLY CHILDHOOD EDUCATION

Ed8-335 PRACTICUM IN EARLY CHILDHOOD EDUCATION. Intensive three-week, supervised field experience involving daily interaction with young children of ages three-five who will be attending the Worcester State College Child Care Center during the summer; a seminar included. 3 credits each practicum. M-Th; TBA; Staff.

Ed9-385 INDEPENDENT RESEARCH IN EARLY CHILDHOOD EDUCATION. For students wishing to pursue independent study in a specialized area of Early Childhood Education; greater understanding and appreciation of early childhood should result; faculty members from other disciplines may also be called in to counsel the student in resources and approaches. M-Th; TBA; Polito.

ELEMENTARY & SECONDARY EDUCATION

Ed9-750 BEGONE DULL GRAMMAR. Particularly for teachers who have to or want to teach grammar; review of causes for failures of past grammar approaches; experiencing of alternative approaches to achieve grammar objectives. M-Th; 9 a.m.-12 p.m.; Osborne.

READING & LANGUAGE ARTS

Ed9-595 SPECIAL PROBLEMS: ADMINISTRATION AND SUPERVISION OF TEACHER PERSONNEL IN LANGUAGE ARTS AND READING. Candidates studying for the CAGS in Language Arts and Reading, upon the consent of the instructor (Dr. Barbara Pilon), will be expected to supervise and evaluate master's degree candidates in language arts who will be working with children in the elementary grades. Teachers accepted for the course will be required to do a paper, test children, evaluate tests, and critique and use new materials in language arts and reading. A final evaluation of the program will be required. ENROLLMENT LIMITED. Contact Dr. Pilon prior to registration. M-Th; 9 a.m.-12 p.m.; Pilon.

HEALTH EDUCATION

He8-260 HUMAN SEXUALITY AND SEX EDUCATION. Examines physiological, psychological, sociological, philosophical, and historical background of sexuality; techniques and methods for subject area in the elementary/secondary school emphasized. M-Th; 9 a.m.-12 p.m.; Munson.

He8-275 SCHOOL HEALTH COUNSELING. Primary goal of the course is to help those teachers who find themselves, from time to time, working with individuals and groups in "non-official" counseling type situations; a secondary goal is to provide teachers with the skills and knowledge that are necessary in order to apply counseling techniques to their own teaching situation; subjects covered will include - establishing a climate for effective counseling; an overview of counseling approaches; counseling techniques and strategies; typical problems in counseling; application of techniques to counseling evaluation. M-Th; 1-4 p.m.; Munson.

He8-415 AGING, DEATH, AND SUICIDE EDUCATION. Content to be covered in this course will include - exploring the mythology and stereotyping concerning death, suicide and aging; typical difficulties in coping with death, bereavement, aging, and suicidal impulses; available alternatives for coping, and; suicide prevention measures. M-Th; 4-7 p.m.; TBA.

HISTORY

Hi/Po8-315 ORGANIZED LABOR: A CONTEMPORARY VIEW. Examination of the American labor movement from a historical perspective as well as examining the position of organized labor in the United States today; relationship of the AFL-CIO to the Democratic Party discussed. M-Th; 9 a.m.-12 p.m.; Twiss.

MANAGEMENT

Mg7-111 ACCOUNTING II. This is the second of a two semester sequence on the basic structure and fundamental concepts and principles of accounting; includes nature and classification of accounts, development of accounting records including special purpose journals, controlling accounts and subsidiary ledgers; establishment of the accounting cycle, preparation of financial statements and consideration of such areas as sales, purchases, cash receivables, payables, inventories, deferrals, accruals and plant assets included.

Prerequisites: Mg7-111 - Accounting I. M-Th; 9 a.m.-12 p.m.; Rapuano.

Mg7-315 QUANTITATIVE ANALYSIS AND INFORMATION SYSTEMS. Introductory course on the basic quantitative analysis techniques applied to business planning, operations and control systems; techniques are presented within the framework of business information systems. Prerequisites: Management Data Processing, Ma7-302. M-Th; 4-7 p.m.; Endriga.

Mg7-573 SELECTED TOPICS IN BUSINESS ADMINISTRATION: UTILIZATION OF HUMAN ASSETS. Selected topics in business of mutual interest to the student and faculty. M-Th; 7-10 p.m.; McEachern.

Mg7-661 INTERNSHIP IN PUBLIC ADMINISTRATION: REORGANIZING WORCESTER'S GOVERNMENT AND ADMINISTRATIVE STRUCTURE. The Management Program provides majors the opportunity to gain practical experiences in the operations of government. Qualified students can spend a variety of part-time or full-time internships with cooperating governmental agencies for varying lengths of time. The student participates in various managerial activities under the supervision of experienced executive and managerial personnel. Students must participate in completion of the program. An evaluation of the student's efforts will be secured from officials of the organization in which he interned. 1-12 credits. Prerequisite: PUBLIC MANAGEMENT and consent of instructor. M-Th; 4-7 p.m.; Bornfriend.

Mg7-671 INTERNSHIPS IN BUSINESS ADMINISTRATION. Management Program provides majors the opportunity to gain practical experience in the operations of business; qualified students can spend a variety of part-time or full-time internships with cooperating business firms for varying lengths of time; student participates in various managerial activities under the supervision of experienced executive and managerial personnel; students must participate in the Internship Seminar and submit a written report upon completion of the program; evaluation of the student's effort will be secured from officials of the organization in which he interned. M-Th; 9 a.m.-12 p.m.; Endriga.

Mg8-180 GOVERNMENT REGULATION OF BUSINESS. Overview of the new wave of government regulation on the operations of both large and small business firms; consideration of regulatory programs in the areas of consumer practices, discrimination in employment, job safety, and management of environmental issues; emphasis on the methods by which business adapts to the increased role of government, such as compliance, evasive tactics, and direct efforts to modify burdensome requirements. M-Th; 7-10 p.m.; Bornfriend.

MEDIA

Me8-253 PHOTOGRAPHY II. Study of elements of composition in photographic communication; elements of visual language discussed and experienced through assignments that require the integration of the elements in imagery; instruction through lectures, illustrations, laboratory sessions; photographic assignments provide student with experiences in defining, using, and producing imagery exemplifying relationships of figure to ground and laws of visual perception. Prerequisite: Photography I. M-Th; 9 a.m.-12 p.m.; Byers.

NATURAL SCIENCE/PHYSICS

Ns8-852 MODERN TOPICS IN ENVIRONMENTAL SCIENCE. Stresses the interdisciplinary nature of physical law as applied to the analysis of man's physical environment; topics considered include air and water pollution, weather modification, environmental management and protection, and environmental studies in the schools. M-Th; 7-10 p.m.; R. Kelley.

PHILOSOPHY

Ph7-290 PHILOSOPHY OF EDUCATION. Ontological, epistemological and axiological ideas and problems of being, knowledge and value, and their relationship to the ends and the means of education; philosophical analysis of the major presuppositions of the philosophies of education is the basis for a critique of present educational practices and the assumptions about man, nature, society, and the universe underlying them; emphasis upon the problems and values of humanistic education, as they are expressive of the relationship of theory and practice and the ends and the means of education; selected texts and orientation will vary with instructor. M-Th; 4-7 p.m.; Schlosser.

POLITICAL SCIENCE

(See History)

PSYCHOLOGY

Ps7-111 GENERAL PSYCHOLOGY II. Continuation of General Psychology I; orientation to psychology as introduced in General Psychology I; emphasis upon emotion, behavior disorders and topics in the social milieu. Prerequisites: General Psychology I. M-Th; 9 a.m.-12 p.m.; Guarini.

Ps7-240 ABNORMAL PSYCHOLOGY. Etiology, dynamics and treatment of psychopathology and its relationship to normal personality; contemporary approaches as well as traditional categories of psychopathology. Prerequisite: General Psychology I and II. M-Th; 9 a.m.-12 p.m.; Lonergan.

Ps7-510 SPECIAL TOPICS IN PSYCHOLOGY. Each topic is a course in a selected area of Psychology of mutual interest to instructor and students; topic and prerequisites to be announced in advance. Prerequisite: General Psychology I and General Psychology II and departmental approval. M-Th; 7-10 p.m.; J. Shea.

URBAN STUDIES

Ur8-400 LOW ENTROPY ENERGY SYSTEMS FOR URBAN DWELLINGS. Designed to evaluate the effectiveness of alternative energy approaches for on-site application, including solar collectors, wind devices, heat pumps, structural materials and low entropy design; conducted in a laboratory format, with immediate opportunity for innovation and direct implementation in an existing dwelling, and in a manner which will permit comparative testing for durability and cost/effectiveness. M-Th; 9 a.m.-12 p.m. and/or 1-4 p.m.; Langlois.

SECOND SESSION

TWO–WEEK WORKSHOPS

JULY 11 – JULY 22

JULY 25 – AUGUST 5

AUGUST 8 – AUGUST 19

ALL CLASSES MEET MONDAY THROUGH FRIDAY
from 8:30 a.m. to 12:30 p.m.

Days and faculty appear below
each course description.

ART

Ar8-220 CREATIVE CRAFTS. Designed to introduce a number of craft techniques; particular attention given to the creative process as it applies to personal needs as well as teaching needs. July 11-July 22; Dolphin.

Ar8-250 PRINTMAKING WORKSHOP. Studio course emphasizing the woodcut and etching (line, aquatint, and soft ground etching); students urged to develop and refine visual ideas from work done in previous art courses. Prerequisite: Any studio course. July 11-July 22; Rosmer.

AUDIO VISUAL MEDIA

(See Media)

BIOLOGY

Bi8-250 ANIMAL ECOLOGY. Responses of animal populations and communities to environmental factors; effects of physical and biotic factors on the distribution and abundance of animals together with interactions, behavior and adaptations; flow of energy through animal communities; concepts of nich, speciation, succession, classification and evolution are considered. Prerequisite: A course in General Zoology. August 8-August 19; Graham.

COMMUNICATION DISORDERS

Cd8-180 COMMUNICATION DISORDERS IN THE PUBLIC SCHOOLS. Under Chapter 766 the classroom teacher and the personnel of the public schools are faced with children with a broader range of communication disorders, a greater variety and severity; course reviews the major types of communication disorders and assists public school personnel in dealing with these children and their special needs. July 25-August 5; Dailey.

Cd8-265 EVALUATION OF THE PRE-SCHOOL CHILD USING THE GUERIN AND HISKEY-NEBRASKA TESTS. Applicability of the Guerin Picture Stimulus Association Test and the Hiskey-Nebraska Test of Learning Aptitude for use with the pre-school normal, deaf, bilingual, and slow learner child; discussions of children screened and tested at residential and day public and private school and clinical settings; focus on insights teachers may gain relative to the potential of the child from performance on the tests. July 11-July 22; Guerin.

COMPUTER SCIENCE

Cs8-150 WORKSHOP IN COMPUTER SCIENCE. Introductory course in the Basic language; intent of workshop is to present to those having little or no knowledge of the computer, the power of the computer in solving problems from various fields; student introduced to the computer - both hardware and software and will, through the use of a programmed text, be taught Basic Practical use of the computer will be stressed. July 11-July 22; Redding.

ECONOMICS

Ec8-300 CONSUMER ECONOMICS. Basic study of personal and family finance with emphasis on the various avenues of obtaining income and budgeting expenditures; process of obtaining credit, buying insurance, and various forms of personal saving or investment opportunities for the consumer; brief attention given to consumer protection legislation near the end of the course. July 11-July 22; G. Kelley.

EARLY CHILDHOOD EDUCATION

Ed8-315 DEVELOPMENT OF MATH ACTIVITIES FOR THE CHILD UNDER SIX YEARS OF AGE. Participants expected to plan, prepare and produce a collection of mathematics materials, games and activities designed to help young children develop an awareness of and appreciation for mathematics; identify and classify the materials used to meet specific learning needs and styles of young children; read and report the related literature in the field of pre-school mathematics; participate in and contribute to workshop sessions. July 25-August 5; Stefanini.

Ed8-330 METHODS AND MATERIALS IN EARLY CHILDHOOD EDUCATION. Attention focused on the curriculum and the daily activities designed to enable young children to use their developmental powers to the fullest; students will consider the ways and means by which the teacher creates an environment rich in learning opportunities geared to the age level characteristic of young children. Registration is limited to those interested in nursery and/or kindergarten programs. July 11-July 22; Polito.

Ed9-385 INDEPENDENT RESEARCH IN EARLY CHILDHOOD EDUCATION. For students wishing to pursue independent study in a specialized area of Early Childhood Education; greater understanding and appreciation of early childhood should result; faculty members from other disciplines may also be called in to counsel the student in resources and approaches. TBA; Polito.

ELEMENTARY & SECONDARY EDUCATION

Ed8-425 INDIVIDUALIZING INSTRUCTION IN ELEMENTARY SCHOOL. Several approaches to individualization in the elementary school; opportunity for design, try-out and evaluation offered; adaptation to individualization of present curricula encouraged. July 11-July 22; Geer.

Ed8-427 SCIENCE ACTIVITIES FOR THE ELEMENTARY SCHOOL. Examination of several approaches to the teaching of instruction in elementary school science; teachers will have an opportunity to design science activities consistent with existing curricula; it is hoped that these activities will be tried out with children and evaluations made; environmental education encouraged. July 25-August 5; Geer.

Ed8-445 CAREER EDUCATION IN THE ELEMENTARY SCHOOL. Focus upon the integration of career education into the elementary school curriculum; develop an understanding of the concept of awareness, objectives and evaluation of career education; and to involve the students in the community and the world of work. July 25-August 5; Joseph.

Ed8-461 METRIC WORKSHOP FOR THE CLASSROOM TEACHER. Designed to provide teachers with a hands-on approach to learning this simple and logical system that 95% of the world is presently using; experimental approach accentuated; major areas of concentration will be length, mass (weight), volume and temperature; teachers will have opportunity to develop materials for use in their classrooms; in lieu of textbooks, teachers will be asked to pay an amount sufficient to cover the cost of the materials which will be used. July 11-July 22; R. O'Connor.

Ed8-450 INDIVIDUALIZING SOCIAL STUDIES IN THE ELEMENTARY SCHOOL - WORKSHOP. Intensive workshop focusing on developing a learning unit utilizing an activity card approach to individual or small group activities. July 11-July 22; N. Harris.

Ed8-757 TEACHING HISTORY WITH FICTION. Teaching history using mysteries, science fiction, historical novels; development of daily and long range plans based on these types of fiction. July 25-August 5; Zegarra.

Ed9-740 TEAM TEACHING IN THE MIDDLE SCHOOL. Two-week workshop designed to provide middle school teachers with those skills and competencies needed for team teaching in the Middle School. July 11-July 22; Zegarra.

READING & LANGUAGE ARTS

Ed9-550 READING STRATEGIES FOR THE READING DISABLED CHILD. Consideration of the factors in remediating the child who has reading disabilities; techniques and approaches to alleviate such conditions. July 11-July 22; Fraumeni.

Ed9-565 PRACTICUM: LANGUAGE ARTS & READING. Two-week workshop for students concentrating in language arts at the Master's degree level for the purpose of giving students the opportunity to apply what they have learned in their major area by working with elementary pupils; students responsible for preparing daily individualized lesson plans, teaching lessons, and attending daily seminars. Prerequisite: Students must have taken all prior couses in the Language Arts sequence or receive the permission of the instructor. July 11-July 22; Flaherty.

Ed9-570 LAB PRACTICUM IN LANGUAGE ARTS AND READING IN THE ELEMENTARY SCHOOL. Language Arts Concentration majors will work, under supervision, for two weeks in an all-day workshop with pupils from the Worcester community (grades 1-6). The numbers of children will be restricted and will depend on how many graduate students are involved in the workshop. Children with language and reading problems will be helped using innovative materials and methods. Held during the summer only. Prospective enrollees must see Dr. Barbara Pilon BEFORE the end of May. In lieu of textbooks, teachers will be asked to pay an amount sufficient to cover the cost of the materials which will be used. July 11-July 22; Pilon.

SPECIAL NEEDS

Ed8-650 THE ADOLESCENT WITH SPECIAL NEEDS (LEARNING DISABILITIES). Planned for teachers in middle schools (grades 5-8) and in high schools (grades 9-12). Chapter 766 is designed for individuals from the ages of 3 through 21. Much attention has been given to children in the pre-school and elementary school levels. However, the problems of the adolescent with special needs must be addressed. A review of the adolescent and his special problems will be the focus of the workshop. Techniques for assessing and diagnosing specific problems with strategies for helping the student overcome these problems will be present and intensively studied. Reading, language arts, and mathematics will be basic areas for study. Speakers, films, and discussion periods will be used as a basis for the course. The student will be expected to prepare a portfolio of materials for use in his/her own school situation. July 11-July 22; Griffiths.

HISTORY

Hi8-115 NEW ENGLAND HISTORICAL MUSEUMS AND RESTORATIONS. Survey of the development of historical museums and restorations in this area; visits to a number of museums and restorations included; emphasis placed on the types of work done and vocational opportunities in museums, restorations, and archives. July 11-July 22; Mon.-Fri.; 8:30 a.m.-12:30 p.m.; Walett.

MANAGEMENT

Mg7-573 SELECTED TOPICS IN BUSINESS ADMINISTRATION: MANAGING THE SMALL BUSINESS. Selected topics in business of mutual interest to the student and faculty. July 11-July 22; McEachern.

MEDIA

Me8-100 CREATIVE ADVERTISING AND PUBLICITY. A "how to do it" workshop which introduces the student to the forms, functions, and materials of effective and efficient public information operations, which can have immediate applications in practical situations. July 25-August 5; Seiffer.

Me8-145 THE PERFORMER IN SPACE. For students with or without a formal background in dance, workshop will focus on the aesthetic and communicative patterns of the human body; human movement examined in terms of how we relate to and are affected by architectural surroundings; using the "found" artworks of the campus landscape, participants will improvise a short videotape recording of their discoveries. August 8-August 19; Carlson.

Me8-180 IMPROVISATIONAL ACTING. For actors of any level of experience and development, and for teachers and recreation leaders for all age groups; exercises will cover, stimulation of imagination, creative movement, ensemble performance and the creation of mimed and spoken scenes; in addition to the improvisation of original scenes by the student, the principles of improvisation will be applied to the rehearsal of conventional scripts. July 25-August 5; A. M. Shea.

Me8-252 PHOTOGRAPHIC COMMUNICATION: THE ESSAY. Study of the photographic essay as a form of visual communication; instruction includes the history of the photographic essay, methods of production, categories of essays, and image-word relationship and editing; emphasis placed upon the production of the phoographic essay as a means to learning methods of production and content development; critiques will assist the student in the development of visual thinking. Prerequisites: Me-150 (Introduction to Photography) or Me8-250 (Photography I); Me-250 (Advanced Photography) or Me8-275 (Advanced Methods in Photography). Not open to students who have completed Me-252 (The Photographic Essay). Cameras are required. Limited to 20. A lab fee of $10.00 will be charged. July 11-July 22; Byers.

NATURAL SCIENCE/PHYSICS

Ns8-300 COMPUTER APPLICATIONS FOR NATURAL SCIENCE. Survey of useful computer problems including large data base management simulation techniques and principles of modern operating systems as needed in the engineering and applied world. July 25-August 5; Glassbrenner.

PHILOSOPHY

Ph8-291 PHILOSOPHY OF HUMAN POTENTIALITY - AN EXPERIENTIAL APPROACH. Theories and practices from the Human Potentials Movement used to unlock the potentialities for growth and self-being of each participant; the concepts and experiences of centering encountering, energy-floe, self-actualization, consciousness-deepening, body-awareness and creative-freedom, developed through intra-personal, interpersonal and transpersonal situation; focus on the existentiality and spirituality of human experiencing. July 11-July 22; Schlosser.

PHYSICAL EDUCATION

Pe8-200 LEARNING THROUGH MOVEMENT AND INTER-RELATED ARTS. Experiential course dealing with student creativity in all the arts-emphasizing integration through movement; elements of movement inter-related with the elements of music, language arts and visual arts; individual and group experiences created around line, space, time, form, color and nature. July 11-July 22; Semerjian.

Pe8-280 SCIENTIFIC PRINCIPLES OF COACHING. Guide for coaches and athletes which applies the principles and mechanics of motion to a variety of physical activities in order to improve performance without wasted energy and effort; laws of physics, physiology, and mathematics are related to physical activities; twelve sports activities analyzed; coach and athlete can derive a significant edge in the hotly competitive world of athletics. August 8-August 19; Dyson.

Pe8-700 COACHING & TEACHING OF TENNIS. Fundamentals of coaching tennis; analysis of strokes, strategy, and team selection covered. Enrollees must supply their own racquets. July 25-August 5; Nugent.

Pe8-800 TECHNICAL ROCK CLIMBING. Purpose of the course is to present to teachers and students a series of skills in the areas of technical rock climbing and mountaineering; workshop will aid those persons involved in outdoor education to present to students an addition to a curriculum that is different, exciting, self-challenging, and fun; main phases of concern will be on location (rock) instruction in basic climbing procedures and techniques; safety and first aid in climbing situations; criteria and methods in establishing mini-outdoor programs. The majority of practical experience will take place at Leominster State Park. It is assumed that participants be in reasonable good physical condition; able to share and contribute to a rather rigorous program based on a modified Outward Bound philosophy. July 11-July 22; Leonard.

SPANISH

Sp8-600 PRE-INSTITUTE WORKSHOP: "PRE-SUMMER INSTITUTE INTERMEDIATE-ADVANCED CONVERSATIONAL SPANISH". Intensive advanced oral expression course of particular use to those who plan to enroll in the proposed new Spanish master's program at WSC; only credits obtained in advanced level of the Summer Spanish Institute will be accepted toward this degree. July 11-July 22; Alcala.

Sp8-650 SPANISH SUMMER INSTITUTE. Established mainly to improve and consolidate language abilities in a new and different frame-work; three levels of language proficiency - Intermediate, Advanced and Very Advanced; only credits obtained in the Very Advanced level are applicable to the Master's program in Spanish; students are expected to speak Spanish during the breaks and lunch hours; language classes supplemented with movies, guest speakers and classes on Spanish and Latin American crafts, music, dances and cooking, all of which will culminate in a final "fiesta". August 1-August 19; Alcala.

THEATRE ARTS

(See Media)

FIRST SUMMER SESSION

REGISTRATION BY MAIL

MAIL TO: Worcester State College, Division of Graduate Education & Special Programs, 486 Chandler St., Worcester, MA 01602.

STUDENT NAME _____ DATE _____
(Last) *(First)* *(Middle)*

STUDENT ADDRESS _____
(Street) *(Town)* *(State)* *(Zip Code)*

HOME PHONE _____ BUSINESS PHONE _____ M ☐ F ☐

Matriculating at WSC ☐ Non-Matriculating ☐ SOCIAL SECURITY NUMBER _____

Is this your first course in the Division of Graduate Education & Special Programs? *Yes* ☐ *No* ☐

☐ Audit ☐ Graduate ☐ Post Masters ☐ C.A.G.S. ☐ Undergraduate

☐ Tuition Exempt Veteran ☐ Veteran ☐ Non-Veteran

Race (Voluntary Information) ☐ Black ☐ Caucasian ☐ Spanish Surname ☐ Other

COURSE NUMBER	COURSE TITLE	SEMESTER HOURS

STUDENT'S SIGNATURE _____
(Please write your name)

SECOND SUMMER SESSION

REGISTRATION BY MAIL

MAIL TO: Worcester State College, Division of Graduate Education & Special Programs, 486 Chandler St., Worcester, MA 01602.

STUDENT NAME _____ DATE _____
(Last) *(First)* *(Middle)*

STUDENT ADDRESS _____
(street) *(Town)* *(State)* *(Zip Code)*

HOME PHONE _____ BUSINESS PHONE _____ M ☐ F ☐

Matriculating at WSC ☐ Non-Matriculating ☐ SOCIAL SECURITY NUMBER _____

Is this your first course in the Division of Graduate Education & Special Programs? *Yes* ☐ *No* ☐

☐ Audit ☐ Graduate ☐ Post Masters ☐ C.A.G.S. ☐ Undergraduate

☐ Tuition Exempt Veteran ☐ Veteran ☐ Non-Veteran

Race (Voluntary Information) ☐ Black ☐ Caucasian ☐ Spanish Surname ☐ Other

COURSE NUMBER	COURSE TITLE	SEMESTER HOURS

STUDENT'S SIGNATURE _____
(Please write your name)

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This catalog was designed by the WSC Office of Information Services.
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WORCESTER STATE COLLEGE
DIVISION OF GRADUATE EDUCATION &
SPECIAL PROGRAMS
486 CHANDLER STREET
WORCESTER, MA. 01602

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